

The University of Chicago

THE INTERNATIONAL ECONOMIC
POSITION OF NEW ZEALAND

A DISSERTATION SUBMITTED TO THE FACULTY
OF THE DIVISION OF THE SOCIAL SCIENCES
IN CANDIDACY FOR THE DEGREE OF DOCTOR
OF PHILOSOPHY

DEPARTMENT OF ECONOMICS
JUNE, 1945

By
GEORGE HAY BROWN

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PREFACE

This study of the international economic position of New Zealand covers the interwar years 1920-38. A priori, this period in New Zealand looked like a promising field for an inductive study, since international trade was important to the economy, agriculture was the predominant occupation, and a wealth of statistical information was known to be available. It was hoped that the New Zealand data would reveal one or more major disturbances of sufficient magnitude and duration to supersede the random and temporary factors that ordinarily hinder economic analysis.

A preliminary study established several points: (1) there had been a major drop in the value of exports during the depression of the early 1930's; (2) there had been no other disturbance of comparable importance during these same years; and (3) the available data had been only partly explored, probably because of the secondary importance of New Zealand in comparison with Australia, whose economy is somewhat similar.

The magnitude of the disturbance in the value of exports suggested an opportunity to verify the reasoning in international trade theory concerning adjustments to this type of phenomena. Before starting out in this endeavor, however, it seemed desirable to present the important economic series for the years 1920 through 1938 in order to give a clear picture of the disturbance to be studied. As there had been no organized study of this particular period, it was necessary to bring together the available information, a task represented by Part I of this study.

In dealing with the verification of theory, in Part II, it was found that relatively little attention had been paid in the past to disturbances of the type illustrated by the New Zealand experience. Thus the theoretical aspects of the problem had to be developed, as presented in chapter vii. The theory was then compared with the available facts (chap. viii), monthly or quarterly data being used wherever possible in order to bring out the details of the analysis.

In Part III the sharp differences in governmental policies adopted by the Coalition government (1931-35) and the Labor government (1936-) in meeting the problems created by the depression are discussed and evaluated in the light of the history and theory developed in Parts I and II.

It is believed that this study (in addition to the light it may

throw on international trade theory) makes a contribution to the understanding of the international trade cycle. This is achieved in part by the performance of some of "the necessary inductive spade work on the international aspects of business fluctuations"¹ and in part by recording the effects of the cost reducing policies of the Coalition government and the inflationary actions of the Labor government.

As must be clear, my greatest debt is to Professor Jacob Viner, who stimulated my thinking in the direction of an inductive study and who has encouraged and guided me throughout the investigation. Mr. Lloyd W. Mints has read the entire manuscript and has given me numerous constructive comments. Special thanks are due to Dean Spencer and Dean Cox, whose co-operation in arranging teaching schedules and whose continued interest have been major factors in bringing this study to completion.

Grateful acknowledgment is made of the courtesy shown by the Division of Documents of the Library of Congress and by the Census and Statistics Office of the Dominion of New Zealand. Mrs. Jean R. Parmalee, Miss Clarice Schultz, and Mrs. Marguerite Julian shared the burden of typing the manuscript, and Mr. Sol Rubin, of Foote, Cone, and Belding, prepared all the charts.

¹Jacob Viner, Studies in the Theory of International Trade (New York: Harper & Bros., 1937), p. 432.

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PART I
FACTUAL BACKGROUND

CHAPTER I

INTRODUCTION

The outstanding features of the New Zealand economy are the high value of imports and exports per capita and the degree to which the country is specialized in the production of agricultural and pastoral products. New Zealand leads most countries in per capita foreign trade, a situation which is all the more striking because of the fact that the entrepot trade of the country is negligible. Merchandise exports (perhaps a more significant measure) average approximately 40 per cent of the national income. It is difficult to find a satisfactory statistic to express the degree to which the country is specialized in agricultural production for, while the recorded value of farm products at the farm is about 35 per cent of the national income, this figure does not take into consideration the fact that much of the industry in New Zealand is devoted to the processing, transporting, and financing of the materials produced on the farm.¹ In the words of D. O. Williams: "The predominance of farming as the chief source of our national income has never been even remotely challenged and, apart from possible changes in public policy, farming is unlikely to lose its premier position."² Since, basically, these features reflect the resources of the country, including population and migration as well as the geography, geology, and climate, such resources deserve a detailed examination.

Geography, Geology, and Climate

The most important geographic feature of the islands, other than their isolated position, is the mountainous nature of the country. A high mountain chain (known as the Southern Alps) runs along the entire west coast of South Island and appears in lower relief running northeast through the middle of North Island. A second mountain chain runs northwest from the center of North Island, forming the North Auckland peninsula. As a result of the mountain formation, the rivers in New Zealand are short and swift-flowing and consequently more hindrance than help to internal traffic. Of the

¹D. O. Williams, "The Place of Primary Industries in the Economic Life of New Zealand," in Agricultural Organization in New Zealand, ed. H. Belshaw (Melbourne: Melbourne University Press, 1936), pp. 39-40. Williams estimates the total value of the primary industries (the production and processing of agricultural products) to be 50 per cent of the national income.

²Ibid., p. 36.

relatively few natural harbors, only two (at Auckland and Wellington in North Island) have been used, the others being located either on the west coast of South Island or the east side of the Auckland peninsula, where the nature of the terrain cuts them off from any hinterland.

As a result of the large areas of water surrounding the islands, New Zealand enjoys a remarkably even temperature throughout the year and a relatively heavy rainfall. The abundant vegetation and the fact that stock can be grazed the year round account in large part for the marked specialization in sheep-raising and dairying. In the plains of Canterbury and Otago in central and southern South Island, which are screened by the high mountains to the west, the climate is drier and the land more suitable for the growing of wheat and other crops. Fruit-growing is possible in many parts of the Dominion, apricots being raised in Otago and apples around Nelson in the northern part of South Island and citrus fruits having been successfully introduced in recent years in the warm North Auckland peninsula. It is impossible, however, to raise such tropic and subtropic products as tea, cotton, sugar, or bananas.

Mineral deposits in New Zealand are quite varied but only in a few cases extensive. Large iron-ore deposits are located in the vicinity of Golden Bay in the northwest tip of South Island, but, in spite of several attempts, there has been no sustained commercial smelting of the ore.³ Coal occurs in many parts of New Zealand, mostly bituminous and subbituminous in grade. Many of the high-grade deposits are located on the west coast of South Island, the mines in this locality accounting for 45 per cent of the total coal currently produced. Brown coal, which can be used for ships, railroads, and industrial purposes although somewhat less efficient than the higher-grade coals is mined in North Island and in other parts of South Island. Important deposits of gold and silver, which have been mined for many years, are located southeast of Auckland on North Island and in the vicinity of the coal deposits on the west coast of South Island. Small quantities of tungsten, copper, mercury, tin, and platinum have been mined, but there is no evidence that large-scale operations are possible in any of these metals. New Zealand has no oil fields of any importance, and, although prospecting is still in progress, there is little likelihood that extensive reserves will be discovered.

³In 1939 work was started on a smelter to be operated by the government.

New Zealand forests are quite extensive, so that lumbering has been an important occupation for many years. Certain timbers, notably kauri, have been nearly exhausted, but the present conservation policy of the government and the commercial afforestation practiced since 1923 indicate that this resource will never be wholly exhausted. The waters around New Zealand contain a rich variety of fish, with no evidence of any exhaustion in spite of the heavy commercial fishing. Whaling and sealing, which were of considerable importance in the early history of New Zealand, are now severely restricted and have no commercial importance.

The geographic nature of New Zealand resembles that of the west coast of the United States (Washington, Oregon, and California), although New Zealand, being entirely surrounded by water, has a more uniform temperature from north to south, and a heavier rainfall. The land area is approximately the same; the distance from the equator is almost identical; and the natural endowment (with coal in place of petroleum) is quite similar.

Population and Migration

The population of New Zealand as estimated by the Census Department for April 1, 1940, was 1,549,921, excluding Maoris, who totaled 90,980. This figure represents a continuation of the increase in population which has persisted since records have been kept. The population is almost entirely of British origin, 53 per cent of the total population (including Maori) being predominantly of English descent, 22 per cent Scottish, 15 per cent Irish, and 1 per cent Welsh—a total of 91 per cent British. Of the remaining 9 per cent, 4.5 per cent are Maori, 4 per cent other European, and 0.5 per cent other races, half of whom are Chinese.⁴

In 1936, the last date for which exact census figures are available, 54.11 per cent of the people (excluding Maori) lived in towns of 2,500 or over. There has been a slow but steady increase in the urban population, particularly in towns of 10,000 and over, as a comparison of the above figure with the 38.37 per cent living in towns of 2,500 and over in 1901 will show. This increase has been distributed fairly evenly among the larger urban centers, no one of which dominates the economy. Auckland, for many years the largest city of the Dominion, has a population of approximately 220,000 (14 per cent of the total population), followed by Wellington,

⁴E. P. Neale, "Population Prospects and Problems in New Zealand," Economic Record, XV (October, 1939, suppl.), 83.

TABLE 1*

ANALYSIS OF INCREASES IN NEW ZEALAND POPULATION

Period	Population at Beginning of Period (Excluding Maoris)	Births <u>less</u> Deaths		Arrivals <u>less</u> Departures	
		No.	Per Cent of Population	No.	Per Cent of Population
1861-65	99,021	16,610	16.8	93,169	94.1
1866-70 ....	.....	33,442	....	20,536	....
1871-75	256,393	40,538	15.8	81,946	32.0
1876-80 ....	.....	62,951	....	54,787	....
1881-85	489,933	67,408	13.8	28,959	5.9
1886-90	576,524	64,325	11.2	-8,702	-1.5
1891-95	624,474	57,885	9.3	15,320	2.5
1896-00	701,101	59,534	8.5	10,638	1.5
1901-05	770,312	68,738	8.9	45,446	5.9
1906-10	886,000	81,748	9.2	40,966	4.6
1911-15+....	1,005,589	89,005	8.9	35,561	3.5
1916-20+....	1,096,228	76,607	7.0	14,854	1.4
1921-25	1,214,677	86,744	7.1	49,988	4.1
1926-30	1,344,469	77,342	5.8	24,627	1.8
1931-35	1,446,438†	63,952	4.4	-9,918	-.7
1936-40+....	1,491,484	69,790	4.7	3,398	.2

*Source: New Zealand Official Year Books.

†Departure and return of troops not included.

‡No census in 1931.

the capital city, with a population of 160,000. In South Island the largest city is Christchurch, with a population of 150,000, followed by Dunedin with 85,000. The next towns in point of size are Wanganui and Palmerston North in North Island and Invercargill in South Island, each with a population of approximately 25,000.

Data on the growth of population are presented in Table 1, which also shows separately the natural increase and the influence of migration. In absolute terms immigration has been less than the natural increase since the period 1871-75. In terms of percentage, the natural increase has been of steadily decreasing importance, while the increase due to immigration has fluctuated narrowly without trend during the last fifty years. The high immigration in the early sixties reflects the discovery of gold in South Island, and that in the seventies both a public works boom and the introduction of assisted immigration. The net emigration in the depression period of the early thirties is paralleled by a similar exodus during the depression of the late eighties. Similarly, the low immigration during the years 1916-20 and the unusually high figure in the years immediately following can be accounted for by the difficulty of

movement during the war period. In recent years the rate of natural increase has fallen to approximately the average level of net increase in population due to immigration.

Immigration has always been a matter of concern to the New Zealand government, which sponsored various schemes of assistance during the period 1871-1927. The usual procedure was to allow two-thirds of the cost of passage, with an additional allowance for children, single women, domestic servants, farm laborers, etc. In 1927 assistance was discontinued because of the sharp increase in unemployment during the recession of 1926, a continued suspension of the policy being forced by the severe depression of 1930. In the same way, assistance to immigrants had been suspended for a ten-year period following the depression of the early nineties. A strong general belief in the desirability of immigration, however, still persists, so that sustained prosperity will probably see the resumption of government assistance.⁵

Facts concerning immigration have taken on a further interest in light of recent calculations which indicate that the birth rate in New Zealand is insufficient to maintain the existing population. Neale writes:

The number of people who died in 1938 in New Zealand was 9.7 per 1,000 of population, and the number of infants born alive that year was 17.9 per 1,000 of population, so that it would seem that we had a rate of natural increase of 8.2 per 1,000 of population in that year.

Such a figure might suggest that stationary populations are far from being imminent. Owing to factors concerned with the peopling of New Zealand in the past, an exceptionally large proportion of its total population is, however, temporarily at the ages when mortality rates are low and when reproductivity is high. Actually since 1931 or 1932 insufficient female children have been born to New Zealand's female population to maintain numbers permanently, assuming current rates of mortality and reproduction at the different age groups to be perpetuated.⁶

This situation is accompanied by a decline in the birth rate from an average of 26 per thousand of population in the years 1895-1917 (the average in the years 1855-80 was above 40) to an average of less than 20 per thousand during the past decade. Due allowance, of course, must be made for the postponement of marriages and the restriction of births associated with the severe depression of 1930, but, even so, the outlook is not encouraging.

⁵A. H. Tocker, "New Zealand's Immigrant Absorption Capacity," in The Future of Immigration into Australia and New Zealand, ed. W. G. K. Duncan and C. V. Jones (Sydney: Angus & Robertson, Ltd., 1937), p. 241.

⁶Op. cit., p. 84.

The decline in immigration and the trend in birth rate in New Zealand lead to the conclusion that the population will increase very slowly, if at all, after a few years. This prospect, though in itself not alarming, has a direct bearing on those governmental plans for the future involving increased industrialization, closer settlement, and long-term public works projects. Little recognition, however, has been given this relationship, as later discussions will show.

Form of Government

Although the form of government is not a resource in the ordinary sense of the word, the simplicity of the governmental machinery accounts in considerable part for the "economic climate" of the country. For this reason and because of the frequent reference to governmental actions throughout this study, it seems appropriate to present a brief discussion of the legislative authority at this point.

The central government of New Zealand is patterned after the government of England. The chief administrative section is the Executive Council, made up of the governor-general, appointed by the King as his direct representative, and thirteen ministers selected from the political party having the majority of seats in the House of Representatives. The ministers have direct supervision over the various government departments, but, with the exception of the Post and Telegraph Department, Railway Service, the Legislative Department, and the Judiciary, Police, Army, and Naval departments, each department has a permanent head appointed by the Public Service Commission. The Executive Council which is known as "the government," is responsible for the introduction of most legislative proposals acted upon by the House of Representatives.⁷

The chief source of authority in New Zealand is the House of Representatives, which consists of seventy-six elected European members and four Maori representatives. After each census (i.e., every five years) the Dominion is divided into seventy-six electorates based on the distribution of the white population. A feature of particular interest in the determination of electoral districts is the so-called "country quota" whereby 28 per cent is added to the rural population. In other words, eighty people living in rural areas are considered the equivalent of one hundred people residing in towns of 2,000 or over. The continuation of this provision,

⁷For a more extended description of the form of government in New Zealand see Leicester Webb, Government in New Zealand (Wellington: Department of Internal Affairs, 1940).

which is subject to change by legislative action, is evidence of the high political strength of the agricultural interest, a factor which colors much of New Zealand's legislation.

Election dates, though determined by Parliament, have been declared every three years since 1881 except on two occasions: during World War I, Parliament continued for five years, and during the depression it continued for four years. As a result of this second postponement and the fact that the regular election fell in 1931, before the full effects of the depression had been felt in New Zealand, it was not until late in 1935 that a "new deal" government came into power.⁸ Although a vote of lack of confidence may also lead to an election, no such incident has occurred. In September, 1931, anticipation of such a vote led to the formation of a coalition government which proved to have sufficient strength to withstand several attempts.

Finally, there is a Legislative Council made up of thirty-five to forty members who are appointed for terms of seven years by the governor-general. Although a provision exists for an elective Legislative Council, it has not been put into effect in spite of the occasional complaints that the Council is a haven of refuge for defeated politicians. In practice, the Legislative Council is not a very active force, originating very few bills and making only minor changes in the provisions of the House of Representatives.

An unusual feature of New Zealand's political organization is the absence of state or provincial governments. Prior to 1875 nine provincial governments were in existence, each with an elected superintendent and provincial council, with power to legislate on all matters except custom duties, postal affairs, coinage, etc. The vigorous leadership of the central government under Vogel in 1870 overshadowed the provincial councils until in 1875 they were abolished completely in favor of more numerous county governments having much more restricted powers.⁹ At the present time there are numerous local governments, administratively independent of the counties. The most important are the boroughs, centers of population of 1,000 and over, and the independent town districts made up of population concentrations

⁸The author has been informed by New Zealanders that the 1934 elections were postponed in the hope that sufficient recovery from the depression would be experienced to enable the existing party to continue in power. Actually, however, there was an unfavorable reaction, and the Labor party was aided rather than hindered by the move. See also T. A. Hunter, "Some Aspects of Depression Psychology in New Zealand," Economic Record, X (June, 1934), 33.

⁹Cf. William Parker Morrell, The Provincial System in New Zealand 1852-76 (London: Longman, Green & Co., 1932).

of 500 or more. In addition, there are many special districts set up either to encompass spheres of interest larger than the counties, such as river districts, electric power districts, land-drainage districts, etc., or to enable better co-ordination between boroughs and counties, as in the case of tramway districts, gas-lighting districts, and urban drainage districts. A few special local bodies have been authorized in order to permit more effective control by the central government, as in the case of harbor districts, fire districts, and hospital districts. At one time road districts were quite important (in fact, they antedate the counties), but in recent years they have been replaced almost entirely by main highway districts, which serve in an advisory capacity to the main highways board of the central government.

Local bodies have the power to purchase and sell land, make contracts, and engage in public works. The power to levy taxes on land is subject to control by Parliament, except for moneys to be used for reducing loans upon which there is no limit. New loans must be approved by a central government board before they may be floated, and even then they must be sanctioned by three-fifths of the rate-payers in the district. Even the valuation of the land on which taxes are imposed is determined by the valuer-general of the central government. Prior to 1926, however, control over borrowings by local authorities was not so closely supervised as at the present time.¹⁰

The absence of provincial governments gives the New Zealand Parliament the utmost freedom in enacting legislation. There is absolutely no worry over the problem of infringing upon the rights of subsidiary governments, as all of them receive their authority from Parliament rather than from a constitution. The courts have no restrictive effect on the New Zealand legislature. There are no discussions of whether a law is constitutional, and, although the courts may hold that the administration has committed an ultra vires act (as in the case of restricting the freedom of suppliers to change the factory to which they send milk), the criticism is only that the action has not been directed by Parliament.¹¹ The basic philosophy of government is: "Parliament can do no wrong."

¹⁰For a further discussion of local governments see New Zealand Census and Statistics Office, The Local Authorities Handbook of New Zealand (Wellington: Government Printer, 1926----).

¹¹Hunter, op. cit., p. 35.

CHAPTER II

MONEY AND BANKING

Coin and Paper Money

As New Zealand does not have a mint, the coins in circulation in the Dominion are all of external origin. Prior to 1934 the legal tender coins were those of Great Britain, which included gold coins minted in Australia. British coins, therefore, made up the bulk of the circulation, although there was an appreciable amount of Australian silver and bronze coin. Since these latter, although not legal tender, were accepted by the banks without question, they were not distinguished from British coin by the general public.

So long as Australian and New Zealand currencies were at par with British currencies, no difficulties were experienced with the coinage. However, in 1930 and 1931, when the Australian pound depreciated in respect to sterling more rapidly than did the New Zealand pound, there was a strong tendency to substitute Australian coin for British coin in the New Zealand circulation (Table 2), and there was also an incentive to export coin directly from New Zealand to Britain. To remedy this situation, the import or export of silver coin was prohibited entirely in April, 1931. (The law was later relaxed to permit a traveler to take out or bring in small quantities of coin.) This restriction continued throughout the balance of the period covered by this study.

In December, 1933, the New Zealand government made arrangements with the Royal Mint (in England) to strike special silver coins for New Zealand. These coins are of the same denomination, weight, fineness, etc., as British coin, but are of a distinctive design and are legal tender in New Zealand only. Since February 1, 1935, British silver coins have not been legal tender in New Zealand, and very few are in circulation, but the British penny and halfpenny continue to circulate and are legal tender. Although provision was made for New Zealand bronze coins, no action was taken concerning them until December, 1939, when a small quantity was minted and put into circulation.

Prior to 1934 the only paper currency circulating in New Zealand was the bank notes issued by the trading banks doing business in the Dominion. Before 1914 the charters of the various banks required that the notes be redeemable in gold at the place of issue and restricted the amount of notes to the total of coin, bullion, and

TABLE 2*

NEW ZEALAND IMPORTS AND EXPORTS OF COIN BY COUNTRIES
(Face Value)

Year	Great Britain		Other British Countries		Other Countries	
	Imports	Exports	Imports	Exports	Imports	Exports
1920 ...	£40,775	.....	£1,200	£10,120	.....	£26,460
1921 ...	197,463	.....	858	367	.....	.....
1922 ...	186,487	.....	.....	300	.....	.....
1923 ...	14,510	.....	.....	27,372	.....	.....
1924 ...	.....	£68,695	.....	34,793	.....	.....
1925 ...	30,150	6,342	500	12,883	.....	.....
1926 ...	77,800	.....	.....	6,151	.....	.....
1927 ...	280	.....	.....	.....	.....	.....
1928 ...	42,164	.....	.....	518,000	.....	100,000
1929 ...	63,505	540,000	.....	9,000	.....	100,000
1930 ...	113,087	175	250,000	.....	.....	.....
1931 ...	52,005	200,687	4,150	1,652	.....	.....
1932 ...	55,310	1,104,561+	.....	1,300	.....	.....
1933 ...	295,600	321,354	432	103,350	.....	.....
1934 ...	1,242,000†	2,243,900‡	.....	40,000	.....	.....
1935 ...	381,521	486,000	300	35,000	.....	.....
1936 ...	36,601	34,200	.....	11,045	.....	.....
1937 ...	318,496	.....	14	3,500	.....	.....
1938 ...	31,274	7,905	.....	23,900	.....	.....
1939 ...	25,364	.....	.....	2,795	.....	.....

*Source: Statistical Report on Trade and Shipping in the Dominion of New Zealand (Wellington: Government Printer), Part II.

†Mostly the export of gold coin by the trading banks, with the consent of the government.

‡Reflects the establishment of New Zealand silver coins.

§Includes the export of gold coin by the newly established Reserve Bank.

public securities held by the banks in New Zealand (in no case to be greater than three times the amount of coin). At the outbreak of the war in 1914 an embargo was placed on the export of gold coin and bullion, and the bank notes of the private banks were made legal tender. After the war the ban on the export of gold bullion was lifted, although the movement of gold coin was still restricted, and, by successive extensions of the original proclamation, bank notes were continued as legal tender. In fact, after 1920 the limits to the issue of bank notes were extended by allowing the banks to include securities held in Great Britain and by removing the requirement concerning the relation of notes to coin.

In August, 1934, the right of note issue was taken from the private banks and placed solely with the newly formed Reserve Bank. Since that time Reserve Bank notes have become the only paper money in circulation. These notes are issued in denominations of 10

shillings, 1 pound, 5 pounds, and 50 pounds, and, up to the latter part of 1938, were redeemable in sterling in lots of £1,000 or more. The Reserve Bank was required to hold a reserve against notes and other liabilities of not less than 25 per cent, the reserves to consist of gold coin, bullion, sterling exchange, or gold exchange.

Notes in circulation, which had ranged between £1,500,000 and £1,600,000 prior to 1914, rose sharply during the war period to a level of £6,000,000. Notes outstanding continued at this level until 1936, when a gradual increase started, reaching £11,500,000 in June, 1939. Ninety per cent of the value of notes outstanding is made up of the five- and one-pound denominations, divided almost equally between the two.¹

Trading Banks

Since 1913 there have been six commercial banks operating in New Zealand. The oldest of these institutions is the Union Bank of Australia, which opened a branch in Wellington in 1840.² Several other banks were established in New Zealand shortly after this date, notably the government banks of issue in Auckland and Wellington and the Oriental Banking Corporation, but none of these was able to establish itself on a successful footing.³ The next banks to operate were the Bank of New South Wales and the Bank of New Zealand, both of which opened for business in 1861. The Bank of New South Wales was organized in Australia in 1850 and entered New Zealand by way of a branch office. The Bank of New Zealand was incorporated by special statute in New Zealand, and, being the only locally owned institution, it was appointed the government fiscal agent, a position it held until the formation of the Reserve Bank. In 1864 the Bank of Australasia, which had been incorporated by Royal Charter in 1835, opened a branch in New Zealand, and nine years later (in 1873) the National Bank of New Zealand, which had been organized in England in 1872, was permitted to operate by a special act of the New Zealand Parliament. In 1913 the Commercial Bank of Australia opened branches in New Zealand, thus completing the roster of banks that have been in continuous operation throughout the period covered by this study.

¹Reserve Bank of New Zealand, Statistical Summary, June, 1939, p. 202.

²Most of the information on the early history of New Zealand banks is taken from B. A. Moore and J. S. Barton, Banking in New Zealand (Wellington: New Zealand Bank Officers' Guild, Inc., 1935).

³League of Nations, Memorandum on Commercial Banks, 1913-1929 (Lyon: E. Vitte, 1931), p. 422.

The Bank of New Zealand does about half the banking business in the Dominion, owning about half of the five-hundred-odd branch bank establishments. During the depression of the early nineties the bank was forced to call on the government for assistance. At that time the government acquired approximately one-third of the bank's capital and received the right to appoint four of its six directors, an arrangement that continues today. The bank has a few branches in Australia, Samoa, and Fiji.

The National Bank of New Zealand, which is relatively small, does business in New Zealand only. The other four banks are primarily Australian institutions, the Bank of New South Wales being the largest. These banks, though they handle only a third of New Zealand's banking business, have combined assets much larger than the two New Zealand banks.

As might be expected in a system composed of a few large banks, each with numerous branches, there is considerable uniformity of banking policy and very little evidence of competition.⁴ This accounts in large measure for the conservative policy of the New Zealand banks and especially for the high proportion of reserves to total liabilities, which is so necessary in smoothing the yearly fluctuations in New Zealand's international trade. The power and prestige of the trading banks is illustrated both by the favorable legislative treatment they have received, such as the Banks Indemnity (Exchange) Act (discussed later), and by the fact that the fixed deposits of the trading banks increased relative to the deposits of the government-owned Post Office Savings Bank during the depths of the 1930 depression.⁵ These so-called fixed or interest-bearing deposits represent moneys that are placed in the bank for stated periods running from three months to two years, the English and American practice of permitting time deposits to be withdrawn on notice not being followed.

⁴According to Moore and Barton (*op. cit.*, p. 128), "the banks act in concert in fixing uniform rates of interest on fixed deposits from time to time. In all matters of common interest to the New Zealand banks they act through an organization known as the Associated Banks."

⁵League of Nations, *Commercial Banks 1925-1933* (Lyon: E. Vitte, 1934), p. 331: "Part of the sums withdrawn [from the Post Office Savings Bank] appear to have gone to private savings banks, but the bulk—if transferred at all—went to fixed accounts in the commercial banks.... This movement, which is the opposite of that observed in many countries, reflects the confidence of the public in the commercial banking institutions." Cf. also below, p. 24.

The Reserve Bank

According to A. H. Tocker, a prominent New Zealand economist, interest in a central bank for New Zealand dates back to the period of the 1920's and grew out of a general feeling that, in view of the return to stable money elsewhere, an effort should be made to restore the pre-war gold standard in New Zealand.⁶ The first concrete manifestation of this feeling was an invitation extended by the government to Sir Otto Niemeyer of the Bank of England, who was in Australia in 1930, asking for his advice on the question. The result was the Niemeyer Report recommending that New Zealand adopt a sterling exchange standard and that a central bank be established with the sole right of note issue.⁷ A bill to give effect to this report was introduced into Parliament in 1932 but was withdrawn after the first reading in view of the steady deepening of the business depression. In 1933, however, a slightly revised bill was passed, and on August 1, 1934, the Reserve Bank of New Zealand formally came into being.

The Niemeyer Report had recommended a central bank "entirely free from both the fear and the actual fact of government interference"; the act as passed provided for government representation although not government control. Of the seven directors of the bank (all originally appointed by the government), provision was made to have four elected by the shareholders and three to be appointed by the government, even though the latter advanced two-thirds of the original capital and reserve fund of £1,500,000. The reserve ratio was set at 25 per cent instead of the 30 per cent recommended. Otherwise the report was quite closely followed.

The trading banks were required to turn over to the Reserve Bank all gold coin and bullion in their possession, for which they received the standard price of £3/17/10½ per ounce, although the market price was considerably higher.⁸ As pointed out before, the trading banks were required to retire their outstanding notes, replacing them with Reserve Bank notes or silver coin. They were further required to maintain a deposit at the Reserve Bank equal to

⁶"The Development of Central Banking," Economic Record, XV (October, 1939, suppl.), 46.

⁷Otto Niemeyer, "Banking and Currency in New Zealand," Appendix to the Journal of the House of Representatives of the Dominion of New Zealand (Wellington: Government Printer, 1931), Vol. I, Paper B-3.

⁸The weekly bank reports published in Census and Statistics Department's Monthly Abstract of Statistics (Wellington: Government Printer) show that the bullion holdings of the trading banks were reduced to zero by July 2, 1934 (a month before the opening of the Reserve Bank). See below, Table 3.

7 per cent of their demand deposits and 3 per cent of their fixed deposits.

The Reserve Bank was prohibited from engaging in trade, purchasing the shares of other banks, making unsecured loans or advances, paying interest on deposits, renewing bills (except in exceptional circumstances), and drawing or accepting bills payable otherwise than on demand. The bank was given the power to issue notes; to accept deposits; to buy and sell coin, bullion, and the currencies of other countries; to buy and sell New Zealand and British government securities; and to act as correspondent for overseas banks or as agents of other reserve banks. The bank was permitted to discount commercial bills maturing within one hundred and twenty days, agricultural bills maturing in six months, and treasury bills of any country maturing within ninety days. Loans might be made to the Treasury but were limited to a half-year's anticipated revenue, and advances to local bodies were limited to a quarter-year's revenue. Profit on stock outstanding was limited to 5 per cent, and any excess earnings were to be turned over to the government. In brief, the traditional safeguards were established to remove the bank from the lure of commercial activity and profits and to preserve "liquidity."

The creation of an institution having total assets of over £29,000,000 and a reserve ratio of 99.65 per cent, with a consequent reduction of commercial bank deposits of only £500,000, is an interesting piece of financial legerdemain that bears further analysis. The procedure was fairly simple. In the first place, £500,000 in share capital was offered to British subjects resident in New Zealand, causing a drop of that amount in trading-bank deposits and sterling holdings with the appearance of £500,000 sterling assets and a liability to stockholders of an equal amount on the books of the Reserve Bank. The New Zealand government issued £1,000,000 in new securities and gave them to the bank, government debt domiciled in New Zealand increasing £1,000,000 and the Reserve Bank showing investments on the asset side and a reserve on the liabilities side. When the trading banks, according to requirement, turned over to the Reserve Bank all their gold coin and bullion and received Reserve Bank notes in exchange, the result was the disappearance of £4,350,000 gold assets in the trading banks and the appearance of £4,350,000 "notes of other banks" in its place. The Reserve Bank showed the gold as an asset and the notes as a liability. When the trading banks were further required to redeem their outstanding notes, amounting to about £6,200,000, they transferred short-term claims against sterling

in this amount to the Reserve Bank and asked for a deposit which could be converted into notes as needed. By September 24, 1934, £3,500,000 of trading-bank notes had been redeemed in Reserve Bank notes, and the banks had £700,000 in notes on hand for redeeming bank notes that were being presented daily. This procedure reduced trading-bank note liability by £3,500,000, increased "notes of other banks" by £700,000, introduced a new asset item, deposits with Reserve Bank, of £2,000,000, and at the same time decreased their asset item of bills receivable by £6,200,000. The Reserve Bank, on the other hand, showed an increase of sterling assets of £6,200,000, balanced by an increase of note liabilities of £4,200,000 and a trading-bank liability of £2,000,000. The trading banks were further required by law to maintain a deposit with the Reserve Bank equal to 7 per cent of their demand and 3 per cent of their time deposits, a sum amounting to about £3,000,000. And, finally, the trading banks, probably at the request of the government as they lost interest on the sum involved, transferred outright some £11,000,000 to the Reserve Bank in the form of claims against sterling. By these last two transactions the trading banks exchanged claims against sterling for claims against the Reserve Bank on the asset side of their balance sheet, while the Reserve Bank registered an increase in sterling assets and entered liability to the trading banks of an equal amount.

The government of New Zealand, under the terms of the Banks Indemnity (Exchange) Act, had purchased during the period from January, 1933, through July, 1934, approximately £N.Z.25,000,000 of claims against sterling from the trading banks.⁹ In doing so, it had issued treasury bills to the banks for the face value of the sterling

⁹In an attempt to bolster farming income, the New Zealand government pegged the exchange rate at £N.Z.125 for £stg.100 on January 20, 1933. This move was opposed by the trading banks, who felt that the high rate would cause an accumulation of sterling funds which would have to be liquidated at a lower rate, causing the banks a loss. Consequently, the government agreed to purchase the surplus claims on sterling at the ruling rate, thus bearing any loss that would occur if the exchange rate was reduced (it was believed that the pegged rate would continue for a short time only). The terms of the Banks Indemnity (Exchange) Act, as stated in The Statutes of the Dominion of New Zealand (Wellington: Government Printer, 1932-33), p. 328, are: "If and whenever it is made to appear to the Bank of New Zealand that any bank has for the purpose of its business in New Zealand acquired exchange on London at a rate based on the fixed exchange rate in excess of the amount of exchange sold by it on or after the 20th day of January 1933, the Bank of New Zealand shall, as the agent of the Government, purchase the whole, or any portion of the excess."

No attention was paid to the fact that the banks had made a substantial profit on the exchange acquired before the rates were raised. Furthermore, the banks received treasury bills bearing a higher rate of interest than the short-term claims on sterling that they transferred to the government.

(£N.Z.19,000,000), charging the 25 per cent exchange (which was first considered as a temporary factor) against the general revenue. In this way a "hidden reserve" had been built up by the government which it decided to realize upon now that the exchange rate was to be maintained at the pegged level of £N.Z.125 for £stg.100 by the Reserve Bank. This was achieved by transferring the claims against sterling to the Reserve Bank, thus creating a government deposit of £N.Z. 25,000,000. This was immediately drawn down to £2,500,000 in order to retire the treasury bills held by the bank and to increase government deposits in the trading banks by £2,000,000. These deposits were almost immediately transferred back to the Reserve Bank. To the trading banks, the net result of this series of transactions was to decrease their asset item of government securities and to increase their asset of claims against sterling. In the Reserve Bank sterling assets increased £4,500,000, and a liability of an equal amount was shown as a government deposit.

On its own initiative, the Reserve Bank purchased £500,000 in government securities (possibly from the trading banks) and made a few loans amounting in total to less than £40,000. As a result of the exchange of notes, deposits, and capital stock for gold, claims against sterling, and government securities, the Reserve Bank had legal reserve practically equal to the total of its liabilities. The formation of the central bank made possible a potential fourfold increase in trading-bank "cash" reserves, while the inflationary tendencies of this situation were increased by the conversion of treasury bills to an even more liquid reserve. Offsetting this, however, was the simultaneous reduction of assets and liabilities in the case of trading-bank notes and Reserve Bank capital. In spite of the potential inflationary aspects of the formation of the Reserve Bank, the immediate impact on the trading banks was deflationary.

The course of events described in the above paragraphs is traceable in the following tables. Note, for example, the decline in the trading bank's holding of coin (Table 3) and the increase in the Reserve Bank's holding of gold (Table 5). Tables 3 and 5 also show that the Reserve Bank notes were used either to replace the coin held by the trading banks or to replace the trading-bank notes that had previously been in circulation. Table 4 shows clearly the liquidation by the New Zealand government of "other securities" between June 30 and September 30, 1934. The funds secured from this source were used to reduce the treasury bills held by the trading banks. Note that the decline in "other securities" between September 30

TABLE 3*

SELECTED ITEMS FROM THE WEEKLY REPORTS OF THE
TRADING BANKS, JUNE 11-SEPTEMBER 24, 1934
(£N.Z.000)

Date	Coin	Bullion	Reserve Bank Notes	Advances	Demand Deposits	Notes Outstand- ing	Govern- ment Deposits
June 11 ...	5,039	11	.....	39,105	22,224	6,180	759
June 18 ...	5,051	8	.....	38,911	22,453	6,171	724
June 25 ...	5,044	10	.....	38,800	22,368	6,122	846
July 2 ...	5,039	..	.....	38,698	22,354	6,460	985
July 9 ...	5,039	..	.....	38,904	21,897	6,229	644
July 16 ...	5,036	..	.....	38,846	21,980	6,183	817
July 23 ...	5,046	..	.....	38,560	21,958	6,146	812
July 30 ...	5,039	..	.....	38,919	21,459	6,220	1,318
Aug. 6 ...	4,805	..	6,866	39,096	21,777	5,342	2,988
Aug. 13 ...	3,973	..	6,210	39,113	22,026	4,537	2,887
Aug. 20 ...	2,619	..	5,726	39,152	22,429	4,012	1,795
Aug. 27 ...	1,801	..	5,487	39,327	22,469	3,609	1,684
Sept. 3 ...	725	..	5,031	39,823	22,471	3,337	1,499
Sept. 10 ...	676	..	5,101	39,874	22,144	3,064	1,459
Sept. 17 ...	651	..	5,570	39,828	22,142	2,868	1,635
Sept. 24 ...	601	..	5,196	39,630	22,337	2,705	1,416

*Source: New Zealand Monthly Abstract of Statistics.

TABLE 4*

ANALYSIS OF BALANCES HELD IN NEW ZEALAND
GOVERNMENT PUBLIC ACCOUNTS, 1932-34
(£000, No Distinction Made between £N.Z. and £Stg.)

Date	Cash†	Government Securities	Other Securities
<u>1932:</u>			
March 31	860	1,829	5,856
June 30	182	1,523	8,202
Sept. 30	330	1,031	6,682
Dec. 30	558	1,945	5,527
<u>1933:</u>			
March 31	1,207	2,766	3,851
June 30	577	1,411	11,875
Sept. 30	1,260	1,406	13,607
Dec. 30	2,690	1,726	17,300
<u>1934:</u>			
March 31	503	451‡	23,334
June 30	38	§	31,770
Sept. 30	381	.....	13,299
Dec. 30	4,672	.....	9,739

*Source: The New Zealand Gazette.

†This is not the same as government deposits in the trading banks or Reserve Bank, as there are several government accounts outside the Public Accounts (letter from J. W. Butcher, government statistician, New Zealand Census and Statistics Office, December 11, 1941).

‡Source: The New Zealand Official Year Book. §Not reported.

TABLE 5*

WEEKLY BALANCE SHEET OF THE RESERVE BANK
AUGUST 6-SEPTEMBER 24, 1934
(£N.Z.000)

Date		Liabilities				Assets			
		Notes	State Deposits	Banks' Deposits	Other†	Gold	Exchange	Investments	Other
Aug.	6 ..	7,791	2,499	14,536	1,528	259	24,486	1,500	109
Aug.	13 ..	7,788	2,484	15,412	1,532	1,123	24,487	1,500	107
Aug.	20 ..	7,820	3,334	15,859	1,532	2,431	24,487	1,500	128
Aug.	27 ..	7,975	3,298	16,510	1,532	3,202	24,487	1,500	126
Sept.	13 ..	7,973	3,551	17,387	1,514	4,300	24,492	1,500	134
Sept.	10 ..	8,106	4,063	16,812	1,517	4,351	24,498	1,500	150
Sept.	17 ..	8,684	4,079	16,225	1,520	4,351	24,499	1,500	158
Sept.	24 ..	8,664	4,413	15,913	1,521	4,351	24,501	1,500	160

*Source: New Zealand Monthly Abstract of Statistics.

†Capital £N.Z.500,000; reserves £N.Z.1,000,000.

and December 30, 1934, is offset by an increase in "cash."

In 1936 a considerable change was made in the constitution of the Reserve Bank. The Labor party, which came into power at this time, had as one of its major objectives state control of banking and credit "to insure that the credit of the nation shall be used for the benefit of all the people."¹⁰ The major change was the elimination of private shareholders (although the amount any one person might hold had been limited to £500) and the replacement of their contribution with government funds. All seven directors were subject to appointment by the government for a term of five years, while the secretary of the treasury was made an ex officio member with the power to vote. More important, the bank was given unlimited authority to lend money to any government agency engaged in the financing or marketing of New Zealand produce. The power to advance money to the general government through the purchase of treasury bills was increased to a full year's anticipated revenue. On the other hand, no limit was placed on the purchases the bank might make of other securities issued or guaranteed by the New Zealand government.

No objection can be raised concerning the action taken by the Labor government, since it is better that the full control and responsibility for monetary policy be placed with the government than be divided among several authorities (however "conservative" or "desirable" some of the latter might be). Although inflation did

¹⁰J. O. Shearer, "The 'New' Policy of the Labor Party," Economic Record, XV (October, 1939, suppl.), 131.

follow in New Zealand (see Table 6), it was inherent in the establishment of the Reserve Bank and would probably have occurred with

TABLE 6*

NEW ZEALAND BANK LOANS AND SECURITY HOLDINGS, 1934-39
(£N.2.000)

Date	Reserve Bank		Trading Banks		Total	Change
	Advances to State	Investments	Advances	Securities		
Sept. 24, 1934 ...	.....	1,500	41,603	5,633†	48,736	.....
June 24, 1935 ...	.....	2,094	45,172	5,506†	52,772	4,036
June 29, 1936 ...	.....	2,037	45,077	5,326	52,736	- 36
June 28, 1937 ...	4,955	2,906	47,711	7,496	63,068	10,332
June 27, 1938 ...	4,757	2,732	54,886	6,721	69,096	6,028
June 26, 1939‡...	16,926	3,768	55,090	10,610	86,094	16,998

*Source: The New Zealand Official Year Book.

†Average for the quarter; weekly data not collected.

‡From Reserve Bank of New Zealand, Statistical Summary.

or without government control. However, had the Labor government been forced to finance its program by borrowing abroad, a procedure familiar to most New Zealanders, rather than financing in part through advances from the Reserve Bank, it is possible that the inflation would have been of a lesser order.

The Reserve Bank is now an established fact and has already faced its first crisis. To a large extent its inflationary possibilities have been tapped, so that in the future it will probably be the stabilizing force originally envisaged, although not originally needed.

Savings Banks

Of the institutions in New Zealand that receive savings deposits exclusively, the largest is the Post Office Savings Bank, established by the government in 1867. This bank caters primarily to small savers, an account being opened for a deposit of 10s. and interest being paid on sums of £1 and over. Prior to 1914 the maximum deposit on which interest was payable was £600, but in January of that year it was increased to £1,000. In January, 1921, the maximum was raised to £5,000, and it continued at that level until April, 1928, when it was reduced to £2,000, deposits in existence at that date, however, continuing to draw interest. Since March, 1935, no interest has been paid on any amounts over £2,000. A slightly higher rate of interest is paid on the first £500 of an account than on the remaining balance.

The number of depositors is extremely high (approximately two-thirds of the total population), possibly because sums up to £200 may be withdrawn without delay by the legal representative of a deceased depositor.

There are five trustee (privately operated) savings banks which accept deposits at interest, all of which were established before the Post Office Savings Bank. Other than the one in Auckland, these banks are located in the smaller cities. Their total deposits are about one-fourth that of the postal bank, although the trustee savings banks have paid a higher rate of interest than the Post Office Savings Bank. The maximum amount for any one depositor on which interest is payable was limited by the government in 1908 to £100 (raised to £200 in 1921).

Table 7 compares the growth of fixed deposits in the trading banks with the deposits in the Post Office Savings Bank and the trustee savings banks. Figure 1 repeats these figures graphically and includes the maximum interest rates obtainable (Table 8). It should be noted that since 1932 the interest rates of all three types of institutions have been controlled by the government.

The sensitivity of New Zealand savings deposits to relative interest rates is clearly brought out in this presentation. Figures not reproduced here show that there was a steady increase in the

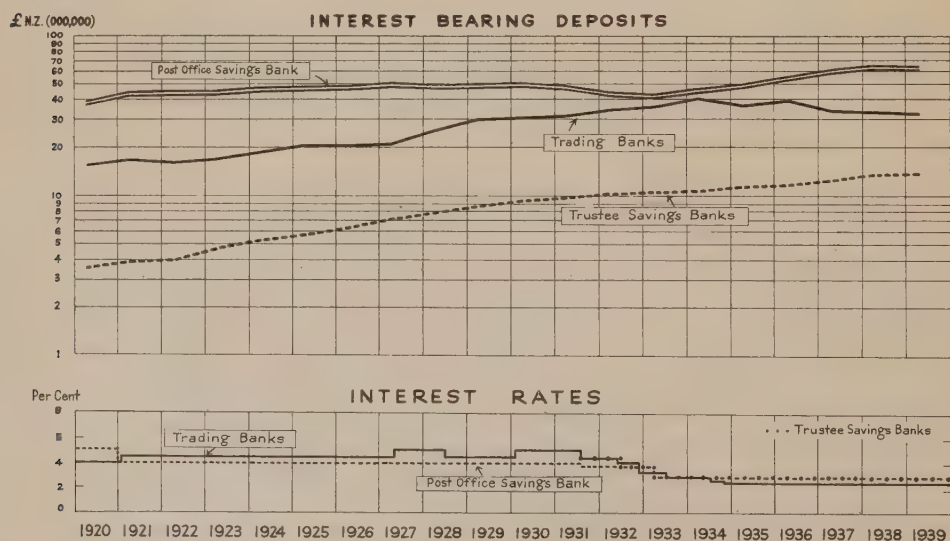


Fig. 1.-Principal interest-bearing deposits and bank interest rates in New Zealand 1920-1939 (FROM TABLES 7 AND 8)

TABLE 7*

INTEREST-BEARING DEPOSITS IN NEW ZEALAND, 1920-39
(IN Z.000)

Year at March 31	Trading Banks†	Post Office Savings Bank	Trustee Savings Banks
1920	15,850	38,393‡	3,558
1921	16,371	43,352	3,841
1922	16,222	43,842	3,917
1923	17,020	44,360	4,664
1924	18,597	46,098	5,217
1925	20,132	46,949	5,740
1926	20,437	47,911	6,364
1927	21,088	48,986	7,008
1928	25,476	47,759	7,657
1929	29,608	48,644	8,478
1930	30,097	49,436	9,234
1931	32,922	47,669	9,687
1932	34,466	43,255	10,132
1933	35,209	42,029	10,471
1934	39,735	44,870	10,848
1935	36,629	49,424	11,286
1936	38,031	52,916	11,773
1937	33,383	58,066	12,480
1938	33,038	63,147	13,339
1939	31,150	60,710	13,866

*Source: The New Zealand Official Year Books.

†Average for quarter ending March 31 for the years 1920 to 1934. Average for the month of March for 1934 and subsequent years.

‡At December 31, 1919.

TABLE 8*

MAXIMUM INTEREST RATES BY TYPES OF BANKS

Date	Trading Banks	Post Office Savings Bank	Trustee Savings Banks
Jan. 1, 1920 ...	4	5	 [†]
Jan. 1, 1921 ...	4	4	.....
Jan. 20, 1921 ...	4-1/2	4	.....
May 9, 1927 ...	5	4	.....
July 9, 1928 ...	4-1/2	4	.....
Feb. 1, 1930 ...	5	4	.....
Aug. 1, 1931 ...	4-1/2	3-3/4	4-1/2
June 1, 1932 ...	4	3-3/4	4-1/2
July 1, 1932 ...	4	3-3/4	3-3/4
Dec. 2, 1932 ...	3-1/4	3-3/4	3-3/4
Apr. 1, 1933 ...	3-1/4	3	3
July 11, 1933 ...	3	3	3
July 5, 1934 ...	2-3/4	3	3
Nov. 2, 1934 ...	2-1/2	3	3

*Source: New Zealand Official Year Books.

[†]Data not available.

average account per depositor in the Post Office Savings Bank prior to 1921 and a steady fall from that time to 1932. Both turning-points correspond to changes in the relative interest rates allowed by the Post Office Savings Bank and the trading banks. In 1928 there was a fall in the Post Office Savings Bank rates (and a reduction of the maximum deposit on which interest was payable) relative to the trading-bank rate, with a resultant fall in the deposits at the Post Office bank and a sharp increase in the trading-bank deposits. The increase in trading-bank deposits in 1936 probably reflects a further restriction on the maximum interest-bearing account at the Post Office Savings Bank. The marked fall of both trading-bank and Post Office savings accounts in 1939 is associated, in part, with the "flight of capital" resulting from the re-election of the Labor government in 1938, and in part, to the heavy issue of government securities, as there was no change in interest rates. In the case of the trustee savings banks, however, neither interest rates nor outside factors have affected the steady growth of their deposits.

Other Banking Institutions

The building and investment societies in New Zealand carry on a small banking business, accepting both checking and savings deposits and making loans against mortgages. Detailed figures before 1932 are not available, but apparently demand deposits have never been in excess of £1,000,000. Although time deposits increased substantially in 1933 (probably because they paid $3\frac{1}{2}$ to 4 per cent interest), they have averaged less than £3,500,000.

An extensive banking business is also done by the stock and station agencies, which do both a trading and financing business among farmers. Unfortunately, no statistics whatever are available concerning these institutions prior to 1932. Unlike American institutions performing a like function,¹¹ the stock and station agents are financially self-contained—borrowing in 1936 only £700,000 from the trading banks out of total liabilities in excess of £10,000,000. The importance of these institutions seems to be decreasing, demand deposits having fallen from a level of £4,500,000 in 1932 to £2,000,000 in 1939. Time deposits have also shown a steady, though more moderate, decrease in spite of the fact that interest rates are the highest obtainable in New Zealand.

Certain local authorities are empowered to accept deposits, but

¹¹E. A. Duddy, "Financing the Wholesale Distribution of Fruits and Vegetables," Journal of Business, XI (October, 1938), 378-82.

the amounts involved are very small—not being reported separately in the annual reports of local bodies. The Public Trust Office, a government institution administering estates, holds considerable funds for its clients, but it does no commercial banking business. This institution, which should not be overlooked in a thorough study of savings accumulated in New Zealand any more than dividends left with insurance companies, is nevertheless of little interest for the present study.

The omission of these various institutions introduces an error in the over-all banking figures of New Zealand. However, complete figures are not available, and the resultant error is small. The most serious source of error is the lack of information on the activity of the stock and station agents prior to 1932.

London Assets

The monetary system of New Zealand prior to 1914 had the appearance of a gold standard. Gold coins were an important part of the internal circulation and could be freely imported and exported but the trading banks held fluctuations in the exchange rates to much narrower limits than the traditional gold standard would require. From 1914 to 1934 the system was de jure a paper standard, bank currency no longer being redeemable in gold or convertible into sterling at a fixed rate. The export of original or melted gold coin was severely restricted. With the advent of the Reserve Bank, New Zealand adopted a sterling exchange standard, which continued until late 1938, when a paper standard was again introduced.

In fact, however, New Zealand was on a sterling exchange standard throughout the entire period prior to 1938 with the exception of the years 1922-25 and 1930-33, when a paper standard was in actual operation. This situation resulted from the fact that the trading banks carried the major portion of their reserve in the form of short-term claims on sterling and followed the practice of converting New Zealand currency to sterling at relatively fixed rates. Substantial amounts of gold coin and bullion were carried, but prior to 1930 they were not used to secure foreign exchange. In 1900 gold holdings amounted to approximately £2,500,000, but from then on they increased steadily, reaching a peak of £8,000,000 in 1919. During the twenties there was a slight fluctuating decline until in 1931 the level was £7,000,000—apparently reflecting a gradual readjustment by the banks to the abnormal position that resulted from the war period, 1914-19. During the years 1932 and 1933 there was a sharp decline in bullion holding (the export of coin being prohibited), which may have been

profit-taking on the part of the banks following the departure of Great Britain from the gold standard.¹²

Exchange rate fluctuations are shown in Table 9, which gives the New Zealand buying and selling rates for bills on London maturing in sixty days. The buying rate represents the New Zealand currency obtainable for a bill for £100 sterling and the selling rate shows the amount of New Zealand currency required to obtain such a bill. The buying and selling rate for sixty-day paper differs from the real exchange rate by the interest income on the money for the sixty-day period. The spread between the two rates also includes the income to the banks (the major dealers in exchange) for their services in making the exchange available at all times.

Figures 2 and 3, which chart the course of the exchange, bring out two points. First of all, the range of fluctuation prior to 1930 was relatively narrow—not much more than would have occurred under a strict gold standard.¹³ The exchange rate has moved downward when sterling reserves were accumulating, as in 1922, and has risen when the reserves were depleted as in 1920 and 1930. In the second place, the spread between the two rates has been changed from time to time as a further implement of bank policy. The buying rate has fallen relative to the selling rate when the sterling reserves have been high, to encourage the purchase of sterling by New Zealanders and to discourage its sale. In times of stress the spread has been narrowed to reverse this situation. This policy occasioned considerable criticism during the early twenties, when the rate was falling and the New Zealand exporters (primarily farmers) were chagrined that £100 sterling brought only £96 New Zealand. From the point of view of general banking practice, however, the policy of changing the spread as well as the rate is defensible.¹⁴

It is clear from this survey that the fluctuations in sterling holdings are an important factor in a study of New Zealand banking.

¹²Cf. above, p. 11.

¹³H. E. Teare, The History, Theory and Practice of Australian Banking, Currency and Exchange (Sydney: Alexander Hamilton Institute of Australia, Ltd., 1926), p. 267. Although in normal times the cost of shipping gold from London to Australia and vice versa may average from 1 1/4 per cent to 1 1/2 per cent, there are various ways by which this cost can be reduced. If the balance of trade with Great Britain is "against" Australia, London may request Australia to ship gold to India to offset an indebtedness which Great Britain may have with that country; or, if Australia's trade balance with South Africa be favorable, Australia may require gold be shipped from South Africa to Great Britain, or to her order elsewhere.

¹⁴Ibid., p. 252.

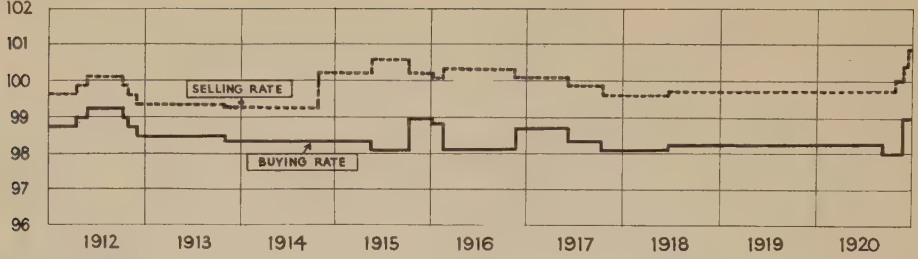
TABLE 9*

STERLING EXCHANGE RATES, NEW ZEALAND ON LONDON, 1900-1938
(Sixty Days)
(£N.Z. for £100 Stg.)

Operative from	Buying Rate	Selling Rate	Operative from	Buying Rate	Selling Rate
Nov. 10, 1899 ..	99 1/8	100 1/4	Nov. 15, 1916 ..	98 3/4	100 1/8
Dec. 7, 1900 ..	98 3/4	100 1/4	May 31, 1916 ..	98 3/8	99 7/8
July 17, 1901 ..	99 3/4	100 5/8	Oct. 3, 1917 ..	98 1/8	99 5/8
Sept. 17, 1901 ..	99 3/8	100 3/4	June 22, 1918 ..	98 1/4	99 3/4
Jan. 17, 1902 ..	99 1/8	100 3/8	Sept. 4, 1920 ..	98	99 3/4
July 17, 1902 ..	99 3/8	100 5/8	Oct. 23, 1920 ..	98	100
Nov. 20, 1902 ..	99 1/4	100 1/2	Nov. 20, 1920 ..	98	100 3/8
May 20, 1903 ..	99 3/8	100 5/8	Dec. 11, 1920 ..	99	100 7/8
Aug. 21, 1903 ..	99 1/2	100 3/4	Mar. 4, 1922 ..	98 3/4	100 1/4
Dec. 21, 1903 ..	99 1/4	100 1/2	Apr. 22, 1922 ..	98 1/2	100
Jan. 21, 1904 ..	99	100 1/4	May 20, 1922 ..	98 1/4	99 3/4
July 21, 1904 ..	99 1/4	100 1/2	Sept. 23, 1922 ..	98	99 3/8
Oct. 21, 1904 ..	99 1/2	100 1/8	Nov. 11, 1922 ..	97 1/2	99 1/4
Jan. 21, 1905 ..	99 3/8	100 1/8	Mar. 29, 1924 ..	97 1/4	99 1/4
July 20, 1906 ..	99 3/8	100 1/16	Oct. 11, 1924 ..	96 3/4	98 1/2
Aug. 20, 1906 ..	99 3/8	100 1/4	Nov. 29, 1924 ..	96	98
Oct. 20, 1906 ..	99 1/8	100	May 9, 1925 ..	97 1/2	98 1/4
Dec. 20, 1906 ..	98 7/8	100 1/4	June 13, 1925 ..	98	99
Jan. 20, 1907 ..	98 3/4	100 3/8	Aug. 14, 1926 ..	98 1/8	99 1/8
July 20, 1907 ..	99 1/8	100	Oct. 9, 1926 ..	98	99
Dec. 20, 1907 ..	98 3/4	100 3/8	May 14, 1927 ..	98 3/8	99 3/8
July 4, 1908 ..	99 3/8	100 1/4	July 9, 1927 ..	98 1/2	99 1/2
Sept. 19, 1908 ..	99 1/4	100 1/8	July 30, 1927 ..	98 5/8	99 5/8
Nov. 14, 1908 ..	99	99 7/8	Nov. 19, 1927 ..	98 1/2	99 5/8
Apr. 10, 1909 ..	99 1/4	100 1/8	Nov. 15, 1928 ..	98 3/8	99 1/2
Oct. 2, 1909 ..	99	99 7/8	July 29, 1929 ..	98 5/8	99 3/4
Nov. 13, 1909 ..	98 3/4	99 5/8	Sept. 4, 1929 ..	98 7/8	100
Apr. 22, 1910 ..	99	99 7/8	Sept. 30, 1929 ..	98 7/8	100 1/4
Oct. 1, 1910 ..	98 3/4	99 5/8	Dec. 4, 1929 ..	99	100 1/2
Apr. 22, 1911 ..	99	99 7/8	Dec. 21, 1929 ..	99 1/4	100 3/4
Oct. 7, 1911 ..	98 3/4	99 5/8	Jan. 31, 1930 ..	99 5/8	101 1/4
Apr. 13, 1912 ..	99	99 7/8	Feb. 18, 1930 ..	100 1/8	101 3/4
May 25, 1912 ..	99 1/4	100 1/8	Mar. 19, 1930 ..	100 5/8	102 1/4
Oct. 5, 1912 ..	99	99 7/8	Apr. 3, 1930 ..	102 1/2	103 5/8
Oct. 26, 1912 ..	98 3/4	99 5/8	Jan. 14, 1931 ..	105	106 1/8
Nov. 30, 1912 ..	98 1/2	99 3/8	Jan. 29, 1931 ..	107 1/2	108 5/8
Nov. 1, 1913 ..	98 3/8	99 1/4	June 4, 1931 ..	107 3/4	109
Oct. 24, 1914 ..	98 3/8	100 1/4	Oct. 12, 1931 ..	107 1/2	109
May 15, 1915 ..	98 1/8	100 5/8	Mar. --, 1932 ..	107 3/4	109
Oct. 2, 1915 ..	99	100 1/4	May 3, 1932 ..	107 7/8	109
Jan. 8, 1916 ..	98 7/8	100 1/8	Jan. 20, 1933 ..	123 1/2	124 5/8
Feb. 24, 1916 ..	98 1/8	100 3/8	Aug. 1, 1934 ..	123	124 1/8
			Oct. 21, 1938 ..	123 9/16	124 7/8

*Source: The Economist (London).

£ N.Z. for 100 £ Stg.



£ N.Z. for 100 £ Stg.

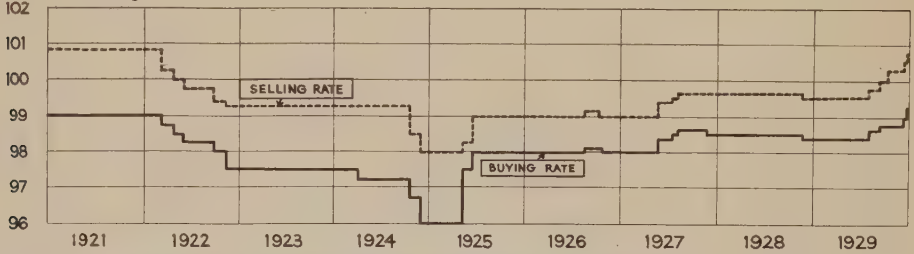


Fig.2 - Exchange Rates (60 Days) New Zealand on London, 1912-1929 (FROM TABLE 9)

£ N.Z. for 100 £ Stg.

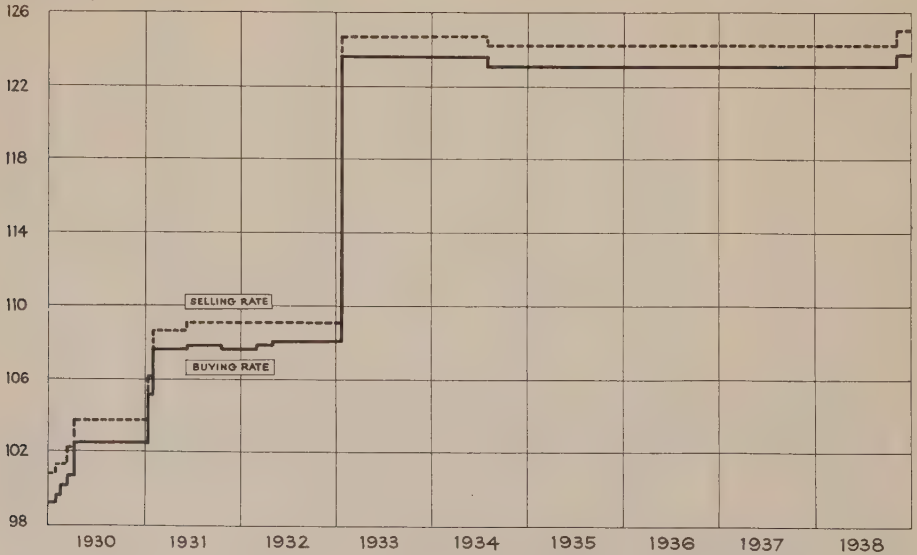


Fig.3 - Exchange Rates (60 Days) New Zealand on London, 1930-1938 (FROM TABLE 9)

Although statistics on these balances were collected before 1934, it is possible, as pointed out by Tocker, to estimate year-to-year changes from the other banking statistics available.¹⁵ Up to 1934 the trading banks reported quarterly their assets and liabilities in New Zealand. From 1926 on the figures were supplemented by weekly data collected by the Census and Statistics office. Cash and securities held outside New Zealand were not reported, nor was any attempt made to separate capital and reserve liabilities between New Zealand and Australian accounts. In 1934, coincidentally with the establishment of the Reserve Bank, the trading banks were required to show foreign balances arising out of New Zealand business.

Tocker pointed out that, since assets and liabilities must balance, any increase in liabilities in New Zealand not offset by a similar increase in assets must be represented by a change in overseas assets, the so-called London funds.¹⁶ However, as pointed out by Wilson, this would not be true if bank stock of New Zealand banks were sold in New Zealand, as the sale of stock would be represented by a decrease in the deposit liabilities reported but would have no effect on the total assets of the banking system.¹⁷ In a similar fashion, any profits earned on account of New Zealand business and not returned to bank shareholders in New Zealand would be reflected in a similar reduction in reported liabilities not associated with any change in total bank assets. Dividends paid to foreign shareholders would, of course, reduce the banking assets applicable to New Zealand business. A further error arises during periods of changing exchange rates, as it is impossible to determine exactly the banks' purchases and sales at the different rates. Normally this difficulty is not serious, as the rates are quite steady, but in the years 1929 and 1930 it would cause an appreciable error, since changes were frequent and of considerable magnitude.

It is impossible to adjust fully for the first discrepancies in calculating changes in overseas assets, as no data are available concerning the domicile of bank shareholders. A crude correction figure can be calculated on the assumption that capital for the Bank of New Zealand and the National Bank of New Zealand is raised from residents

¹⁵"The Measurement of Business Conditions in New Zealand," Economic Record, I (November, 1935), 53.

¹⁶Ibid., p. 54.

¹⁷Roland Wilson, "London Funds and the Australian Economy," Economic Record, XI (March 1935, suppl.), 103.

of New Zealand.¹⁸ Changes in undistributed profits of these banks are consequently treated as reductions in New Zealand liabilities not offset by any change in assets. Strictly speaking, an allowance should be made for New Zealand's share of the undivided profits of the Australian banks, and vice versa, but the gain in accuracy would be of a lesser magnitude than the errors for which there is no adjustment.

In the estimates of changes in New Zealand and Australian overseas assets for trading banks operating in New Zealand, a further error is introduced by the fact that the annual statements of the individual banks are issued at different dates.¹⁹ In using the bank statements as sources of data for this paper, the assumption is made that the condition as of June 31 of each year is not substantially different from that of the date the statement is issued.

Subject to these limitations, Table 10 shows the estimate of changes in overseas assets of the trading banks attributable to New Zealand business.

Relation to Australian Banking

Since five of the trading banks do business in Australia as well as in New Zealand, an interesting comparison can be made of the changes in London assets due to transactions in each of the two countries.²⁰ Table 11 shows the calculations for the changes in London assets due to Australian business of Australian banks doing business in New Zealand, using the general method developed above. Table 12 compares the changes in London assets due to the business situation in each of the two countries, no adjustments being made to reflect changes in exchange rates. From this table it can be seen that in 1920-21 the drain on assets due to New Zealand business conditions was much more severe than that due to the Australian situation. In 1924 the accretion of sterling was to a greater degree

¹⁸The fact that The Economist lists Bank of New Zealand shares among those actively traded on in the London stock market indicates that this assumption is not true. However, the error involved is partially offset by the fact that New Zealanders have probably subscribed to new issues of the Australian banks.

¹⁹The exact dates for the annual statements, as reported in the Australasian Banking and Insurance Record, are as follows:

Bank of New Zealand—March 31
National Bank of New Zealand, Ltd.—March 31
Bank of New South Wales—September 30
Bank of Australasia—October 15
Union Bank of Australia, Ltd.—February 28
Commercial Bank of Australia, Ltd.—June 30

²⁰It should be remembered that the banks do a small business in Samoa, Fiji, and other countries, so that again only approximate figures are obtainable.

TABLE 10*

ESTIMATED CHANGES IN OVERSEAS ASSETS OF ALL TRADING BANKS TRADING IN
NEW ZEALAND DUE TO NEW ZEALAND BUSINESS
(£N.Z.000)

Year at March 31	Capital and Reserves†		Reported Liabilities in New Zealand (All Banks)	Estimated Total New Zealand Liabilities (All Banks)	Reported Assets in New Zealand (All Banks)	Estimated Overseas Assets	Change in Overseas Assets
	Bank of New Zealand	National Bank of New Zealand					
1919-20	6,551	2,175	67,600	76,326	50,097	26,229	.....
1920-21	5,791	2,246	62,816	70,853	41,097	- 244	-27,473
1921-22	6,011	2,529	54,350	62,890	64,667	- 1,797	- 1,553
1922-23	7,256	2,778	55,888	65,922	59,335	6,587	8,384
1923-24	7,862	3,056	58,860	69,778	61,524	8,254	1,667
1924-25	9,244	3,777	61,309	74,330	61,199	13,131	4,877
1925-26	9,546	4,343	59,484	73,373	65,171	8,202	- 4,929
1926-27	10,544	4,345	56,804	71,693	67,646	4,047	- 4,155
1927-28	10,591	4,336	60,554	75,481	63,164	12,317	8,240
1928-29	10,901	4,326	66,056	81,285	62,651	18,632	6,315
1929-30	10,501	4,294	64,983	79,778	69,855	9,923	- 8,709
1930-31	11,059	4,248	61,216	76,523	69,413	7,110	- 2,813
1931-32	10,828	4,202	61,517	76,547	67,708	8,839	1,729
1932-33	11,012	4,155	62,794	77,961	66,914	11,047	2,208
1933-34	9,647	4,146	69,780	83,573	73,435	10,138	- 809#
1934-35	10,251	3,615	63,237	77,103	62,845	14,148#	- 4,010
1935-36	.....	.....	.....	.....	.....	44,088#	- 1,141
1936-37	.....	.....	.....	.....	.....	34,385#	- 9,203
1937-38	.....	.....	.....	.....	.....	26,565#	- 7,820
1938-39	.....	.....	.....	.....	.....	9,272#	-13,295

*Source: New Zealand Official Year Books. †Does not include reserves for contingencies.

‡Government took over surplus exchange under Banks Indemnity (Exchange) Act.

§The overseas assets for March 31, 1935, were reported by the trading banks as £N.Z.23,918,000, and the total for all banks was £N.Z.45,228,736. No information is available on method used to allocate overseas assets between New Zealand and Australian business. Furthermore, the bank reports included a revaluation of exchange held in London prior to the devaluation of the New Zealand currency.

#Overseas assets as reported by trading banks and the Reserve Bank.

TABLE 11*
ESTIMATED CHANGES IN OVERSEAS ASSETS OF ALL BANKS TRADING IN
NEW ZEALAND DUE TO AUSTRALIAN BUSINESS
(£A.000)

Year Ending March 31	Capital and Reserves†			Reported Liabilities in Australia (All Banks)	Estimated Total Australian Liabilities (All Banks)	Reported Assets in Australia (All Banks)	Estimated Overseas Assets (All Banks)	Change in Overseas Assets (All Banks)
	Bank of New South Wales	Union Bank of Australia	Bank of Australasia					
1919-20 ...	8,281	5,412	6,603	97,722	120,247	103,164	17,083	.....
1920-21 ...	7,750	5,412	6,720	103,571	125,786	123,022	2,764	-14,319
1921-22 ...	9,539	6,562	7,547	102,685	128,837	118,392	10,445	7,681
1922-23 ...	9,900	6,665	7,647	109,462	136,288	124,862	11,426	981
1923-24 ...	10,150	6,765	7,745	112,755	140,728	128,396	12,332	906
1924-25 ...	10,400	7,265	7,830	116,857	146,046	116,708	29,338	17,006
1925-26 ...	10,750	8,058	7,893	118,581	149,465	124,971	24,494	-4,844
1926-27 ...	13,073	8,110	7,946	122,470	156,337	136,907	19,430	-5,064
1927-28 ...	13,400	9,249	9,090	131,254	168,265	144,413	23,852	4,422
1928-29 ...	13,650	9,236	9,090	136,449	174,223	151,586	22,637	-1,215
1929-30 ...	13,650	8,850	9,136	131,161	169,093	159,907	9,186	-13,451
1930-31 ...	14,930	8,850	9,167	132,258	171,637	159,804	11,833	2,647
1931-32 ...	14,930	8,850	7,126	161,523	198,867	179,736	19,131	7,298
1932-33 ...	14,930	8,850	7,145	157,637	195,009	183,174	11,835	-7,296
1933-34 ...	14,930	8,850	7,150	165,480	202,775	187,517	15,260	3,425
1934-35 ...	15,050	8,976	9,157	165,810	203,660	191,745	11,915	-3,345
1935-36 ...	15,059	8,997	9,168	161,896	201,590	185,788	15,802	3,887
1936-37 ...	15,046	8,996	9,181	169,671	209,371	188,505	20,866	5,064
1937-38 ...	15,097	9,007	9,203	178,111	217,895	202,627	15,268	-5,598
1938-39 ...	15,121	9,007	9,364	181,340	221,315	209,724	11,591	-3,677

*Source: Australasian Banking and Insurance Record.

†Australian banks lump reserves for bad debts and other contingencies with the liability item "Bills Payable."
This tends to understate the estimated total overseas assets.

TABLE 12*

COMPARISON OF CHANGES IN OVERSEAS ASSETS OF ALL
BANKS TRADING IN NEW ZEALAND DUE TO NEW
ZEALAND AND AUSTRALIAN BUSINESS

Year Ending March 31	Due to New Zealand Business	Due to Australian Business	Total
1920-21	-27,473	-14,319	-41,792
1921-22	- 1,553	7,681	6,128
1922-23	8,384	981	9,365
1923-24	1,667	906	2,573
1924-25	4,877	17,006	21,883
1925-26	- 4,929	- 4,844	- 9,773
1926-27	- 4,155	- 5,064	- 9,219
1927-28	8,240	4,422	12,662
1928-29	6,315	- 1,215	5,100
1929-30	- 8,709	-13,451	-22,160
1930-31	- 2,813	2,647	- 166
1931-32	1,729	7,298	9,027
1932-33	2,208	- 7,296	- 5,088
1933-34	- 809	3,425	2,616
1934-35	4,010	- 3,345	665
1935-36	- 1,141	3,887	2,746
1936-37	- 9,703	5,064	- 4,639
1937-38	- 7,820	- 5,598	-13,418
1938-39	-17,293	- 3,677	-20,970

due to Australian business, leading the bank to lower the exchange rate on sterling in an effort to encourage imports. In 1927-28 and 1928-29 the relatively small change in sterling assets due to Australian business conditions prevented a recurrence of this situation even though reserves on account of New Zealand business were increasing. In 1929-30 the loss in sterling was to a much greater degree due to the Australian situation, and it is doubtful that the New Zealand-London exchange rate would have moved so radically had it not been for this factor.

The figures presented indicate that the Australian situation has had a greater influence on bank policy than the New Zealand situation, although it cannot be concluded that this has been a handicap to New Zealanders. On the basis of the statistics presented here it is likely that the exchange rate would have moved higher in New Zealand in 1920-21, not fallen so low in 1924-25, fallen lower in 1928-29, and not risen so sharply in 1930, had it not been the practice of the banks to pool London assets arising out of both New Zealand and Australian transactions. On the whole, there seems to have been a fairly even balance, but since there has been no clear gain to New Zealand from

its close association with Australian banking, the arguments advanced for an independent banking system in establishing the Reserve Bank are roughly substantiated.

CHAPTER III

PUBLIC FINANCE

Introduction

Full details of the cash receipts and expenditures of the New Zealand government are published annually in the Journal of the House of Representatives and are briefly analyzed in the New Zealand Official Year Book. However, owing to the many activities engaged in by the government, the accounts are complex, and considerable effort is required in separating out any particular set of figures. A further complication arises from the lack of uniformity in accounting practices, some accounts being operated on an accrual basis and others strictly on a cash recording.

Most of the figures compiled to show total governmental expenditure refer to a group of accounts known as the "Public Account." There are, however, many accounts outside the Public Account, notably the Post and Telegraph Department, the State Advances Office, the various insurance offices, the trust offices, and the retirement funds. In general, the accounts outside the Public Account represent enterprises operated by the government that duplicate work done by private concerns, as is true particularly of the insurance offices and trust funds. However, the Post and Telegraph Department is decidedly not of this nature; it, as a matter of fact, undertakes work for other governmental departments such as the collection of taxes, payment of pensions, registration of motorcars, etc.

The Public Account is composed of a number of separate funds which can be divided into four groups. The most important account is the Consolidated Fund, which is credited with most of the income from taxation and from which funds are taken to meet the expenses of most government departments. Many funds, however, merely flow through the Consolidated Fund, such as the motor-vehicle tax, which is transferred to the Main Highways account. Loan moneys for the State Advances Office pass into and out of the Consolidated Fund. All interest on the public debt is paid out of the Consolidated Fund, this being in part recouped from other accounts, some within and others outside of the Public Account.

Next in importance is a group of accounts dealing with public works. Of these, the Public Works Fund is the most important, being credited with most of the loan moneys raised as well as some transfers from the Consolidated Fund. The construction of government buildings,

school buildings, hydroelectric power stations, etc., is charged to this account. Furthermore, railway construction and telegraph extensions are taken care of by this fund, although the Working Railways account and the Post and Telegraph Department pay interest on the funds so expended (the interest being paid to the Consolidated Fund). The Main Highways account is separate from the Public Works Fund, but money for the construction and maintenance of roads is provided by both accounts. Since 1936 loans to the dairy industry have been charged as a payment of the Public Works Fund.

The third group of accounts is concerned with land settlement. Land is purchased by the government, developed, and then leased or sold on long-term mortgages to private individuals. Prior to 1937 the Discharged Soldiers Settlement account was included in this group, as it dealt mainly with loans to those discharged soldiers who were engaged in farming. It has since been consolidated with the State Advances Corporation (outside the Public Account), which handles a wider variety of loans to individuals.

Finally, there are a number of accounts in the Public Account which deal with ordinary commercial operations. Chief of these is the Working Railways account, which is charged with the receipt of railway revenues and from which most of the current expenses of the railways are met. The state coal mines and state forests are also included in this group of so-called "trading accounts."

The main difficulty caused by the interlocking nature of these accounts is the impossibility of determining the true income and expenditure of the government. Trouble is also encountered in working out an appraisal of the over-all source and application of funds. Other difficulties will be treated separately as they occur in the subsequent discussion.

State Indebtedness

A report of the total indebtedness of the state is published annually, showing the face value of all securities outstanding. To this must be added the borrowings of some of the accounts outside the Public Account, which for various reasons have not been included in the debt figures. A deduction must also be made for the securities held by the government, for, although their extinction would involve only bookkeeping transactions, they are reported as part of the public debt. The net indebtedness of New Zealand after allowing for these factors is shown in Table 13.

The various sinking funds of particular loans may be neglected, as they are more in the nature of the expenditure of current revenues

TABLE 13*

ESTIMATED NET BORROWING OF THE NEW ZEALAND GOVERNMENT
(£000)

Year Ending March 31	Reported Debt	Add Unreported Debt†	Subtract Own Securities Held‡	Net Debt	Change from Previous Year
1919-20 ...	201,171	.....	11,476	189,695	.....
1920-21 ...	206,324	.....	8,159	198,965	9,290
1921-22 ...	219,054	.....	11,463	207,591	8,626
1922-23 ...	218,953	.....	7,248	211,705	4,114
1923-24 ...	221,616	.....	6,724	214,892	3,187
1924-25 ...	227,815	.....	5,937	221,878	6,986
1925-26 ...	238,855	.....	5,892	232,963	11,085
1926-27 ...	245,851	.....	5,881	239,970	7,007
1927-28 ...	251,396	543	4,821	247,118	8,148
1928-29 ...	264,192	1,592	4,109	261,675	14,557
1929-30 ...	267,383	2,771	2,380	267,774	6,099
1930-31 ...	276,033	3,979	2,051	277,961	10,187
1931-32 ...	281,943	4,002	2,086	283,859	5,898
1932-33 ...	282,932	6,463	3,202	286,184	2,325
1933-34 ...	302,792	8,463	451	310,804	24,620
1934-35 ...	280,581	8,063	1,193	287,451	-23,353
1935-36 ...	282,561	7,113	1,801	287,873	422
1936-37 ...	287,670	13,139	811	299,998	12,125
1937-38 ...	290,201	46,787	33,513	303,475	3,477
1938-39 ...	303,970	51,757	34,886	320,840	17,365

*Source: New Zealand Official Year Books.

†To 1937 represents Rural Advances bonds and deeds of hypothecation which are included in the reported debt from 1937-38 on. Figures for 1936-37 include borrowings by the Primary Products Marketing Department, and those for 1937-38 and 1938-39 include, in addition, the securities issued by the State Advances Corporation which are largely held by the treasury.

‡Figures to 1929-30 were derived from the detailed report of public securities held by the treasury, Appendix to the Journals of the House of Representatives of New Zealand (Wellington: Government Printer, annually), Parliamentary Paper B-10.

§Includes £5,379,105 raised for expenditure in 1929-30.

||Change due mainly to treasury bills issued and redeemed in connection with the Banks Indemnity (Exchange) Act.

on capital goods. In no case do the sinking funds represent liquid assets that could be used for the redemption of securities, and in any event the various sinking funds have been "released" or consolidated with other accounts in such a fashion as to make year-to-year comparisons impossible.

No attempt is made to estimate the increase in debt in terms of New Zealand currency as a result of the increase in exchange rates. Debt held in London is payable in sterling at face value and, consequently, requires £N.Z.125 for every £100 face value of debt so held. However, very little London-held debt has been redeemed, and

there is a considerable likelihood that British-held debt will increase rather than decrease in the foreseeable future.

New Zealand securities offered for sale abroad bear interest payable in British, Australian, or New Zealand currencies, depending on the domicile of the security. Securities offered for sale in New Zealand bear interest payable in New Zealand currency only. As a result of this situation, an interesting development occurred in 1931 and 1932, when Australian currency depreciated relative to the New Zealand currency. Australians holding New Zealand bonds in Australia were receiving, say, £A.5 for each £A.100 face value of bonds held. By transferring the bonds to New Zealand, they would receive £N.Z.5 for the same bond, which could be exchanged for £5 sterling and, finally, for £A.6/10. The sharp fall of debt domiciled in Australia is shown in Table 14, which analyzes the reported debt according to region. Debt domiciled in New Zealand remained unchanged, of course, when New Zealand currency depreciated relative to the British pound.

The main points brought out in Tables 13 and 14 are the relatively steady increase in debt during the period from 1920 to 1932; the absence of borrowing in the years 1932 through 1935; and the sharp increase in domestic borrowing after March 31, 1937, when the Labor party came into power. Of particular interest is the fact that borrowing in London continued on the usual scale during the early years of the depression. The contraction in 1929-30 was more than offset by the borrowings in the previous year, and in 1930-31 over £7,000,000 were floated.

Interest payments on the public debt in London and Australia constitute a steady demand for foreign funds. Details of these payments as reported in the official statistics are shown in Table 15. An adjusted report showing the burden of overseas interest payments in terms of New Zealand currency is given in Table 17. Payments in Australia, for example, have been converted into sterling at the following rates: prior to year ending March 31, 1930, at par; for year ending March 31, 1931, on the basis that £A.112 were the equivalent of £100 sterling; for the fiscal year 1931-32 at £A.128; and for subsequent years on the basis of £A.125 being the equivalent of £100 sterling. These conversion ratios are a weighted average of the exchange rates during each fiscal year (see Table 16) and consequently, in periods of changing rates such as 1930-31 and 1931-32, would yield accurate figures only if the interest payments were made in approximately equal monthly instalments. Data are not

TABLE 14*

DOMICILE OF REPORTED NEW ZEALAND PUBLIC DEBT
(£000 Face Value)

At March 31	London		Australia		New Zealand	
	Amount	Change from Pre- vious Year	Amount	Change from Pre- vious Year	Amount	Change from Pre- vious Year
1920	95,708	.....	3,386	.....	102,077	.....
1921	99,692	3,984	1,655	-1,731	104,977	2,900
1922	105,919	6,227	2,287	632	110,848	5,871
1923	110,668	4,749	2,159	- 128	106,126	- 4,722
1924	114,877	4,209	2,107	- 52	104,633	- 1,493
1925	120,818	5,941	2,952	845	104,044	- 589
1926	128,048	7,230	3,643	691	107,165	3,121
1927	132,513	4,465	4,042	399	109,296	2,131
1928	139,757	7,244	4,169	127	107,470	- 1,826
1929	149,346†	9,589	4,168	- 1	110,677	3,207
1930	146,580	-2,766	4,277	109	116,526	5,849
1931	154,546	7,966	4,175	- 102	117,311	685
1932	159,642	5,096	3,915	- 260	118,386	1,075
1933	161,401	1,759	2,869	-1,046	118,354	- 32
1934	160,908	- 493	2,908	39	138,976‡	20,622
1935	160,972	64	2,184	- 724	117,425‡	-21,551
1936	158,712	-2,260	1,593	- 591	122,257	4,832
1937	156,737	-1,975	892	- 701	130,041	7,784
1938	156,857§	120	883§	- 9	132,461§	2,420
1939	156,853	- 4	880	- 3	146,237	13,776

*Source: New Zealand Official Year Books.

†£5,379,105 raised for expenditure in 1930.

‡Mostly treasury notes issued in exchange for surplus sterling holdings of the trading bank.

§Increase of £120,000 in London, £83,000 in Australia, and £4,009,750 in New Zealand, due to inclusion of Rural Advances bonds as part of public debt.

available concerning the dates on which funds were acquired for interest payments due outside New Zealand.

Local Bodies' Indebtedness

Tables 18 and 19 show, respectively, the total amount of Local Bodies' debt and the amounts domiciled in London and Australia.¹ Table 19 excludes the amounts lent to local authorities by the government, as any calculations of the total public securities outstanding must eliminate these intergovernmental loans in order to avoid double counting. Interest payments abroad on local-authority debt, converted to sterling on the same basis as interest on general government debt, are shown in Table 20. The interest burden in terms of New Zealand currency is shown in Table 21.

¹Because of approval in Great Britain of New Zealand state and local securities as suitable investments for trusts, charitable institutions, etc., no loans were floated in the United States, Canada, or other countries.

TABLE 15*

INTEREST PAID ABROAD ON NEW ZEALAND GOVERNMENT DEBT
(£Stg.000)

Year Ending March 31	Paid in London	Paid in Australia†	Total
1919-20	3,555†	126	3,681
1920-21	3,999†	141†	4,140
1921-22	4,488†	97†	4,585
1922-23	4,978†	97†	5,075
1923-24	4,978	87	5,065
1924-25	5,299	129	5,428
1925-26	5,460†	154†	5,714
1926-27	5,711†	174†	5,885
1927-28	6,089†	182†	6,271
1928-29	6,698	269	6,967
1929-30	6,470	290	6,760
1930-31	6,842	293	7,135
1931-32†	6,486	186	6,672
1932-33	5,812	127	5,939
1933-34	5,931	125	6,056
1934-35	5,921	122	6,043
1935-36	5,725	78	5,803
1936-37	5,294	64	5,358
1937-38	5,286	43	5,329
1938-39	5,285	38	5,323

*Source: New Zealand Official Year Books.

†Converted to sterling at average rates shown in Table 16. Total interest paid allocated according to domicile of debt.

‡Moratorium on £24,100,199 of British-held war debt introduced the latter half of this year and continued during balance of period.

Prior to 1920 borrowing by local authorities had been small in comparison to the borrowing of the central government. In the years from 1920 to 1929 the absolute increase of local debt was almost equal to that of the government, the greater part, however, being raised in New Zealand. It is interesting to observe that local borrowing decreased sooner and revived later than central government borrowing during the depression period. In part this fact was due to the activity of the Local Government Loans Board, but more largely to the action taken by the local governing bodies.²

²The activity of the Local Government Loans Board can be seen in the following figures:

Year	Total Applications	Loans Approved	Year	Total Applications	Loans Approved
1927-28 ...	£4,636,649	£4,260,981	1933-34 ...	£3,884,132	£3,661,805
1928-29 ...	6,007,045	4,675,772	1934-35 ...	3,859,363	3,965,395
1929-30 ...	4,218,730	4,531,717	1935-36 ...	4,061,076	3,602,480
1930-31 ...	3,840,505	2,605,157	1936-37 ...	2,804,308	2,841,671
1931-32 ...	3,412,365	3,265,005	1937-38 ...	3,362,173	3,221,203
1932-33 ...	2,951,645	2,754,752			

(New Zealand Official Year Book, 1939, p. 560.)

TABLE 16*

AVERAGE EXCHANGE RATES USED FOR CONVERTING
 £N.Z. AND £A. TO £STG.
 (Selling Rate, Telegraphic Transfer)

Date	New Zealand	Australia	
	Approximate Rate	Average for Year Ending March 31	Average for Year Ending March 31
1920-29	100	<u>100</u>	<u>100</u>
<u>1930</u>		<u>101</u>	<u>101</u>
Jan.	102		102
Feb.	103		103
Mar.	104		104
Apr.	105		106
May	105		106
June	105		106
July	105		106
Aug.	105		106
Sept.	105		106
Oct.	105		109
Nov.	105		109
Dec.	105		109
<u>1931</u>		<u>104</u>	<u>112</u>
Jan.	108		118
Feb.	110		130
Mar.	110		130
Apr.	110		130
May	110		130
June	110		130
July	110		130
Aug.	110		130
Sept.	110		130
Oct.	110		130
Nov.	110		130
Dec.	110		125
<u>1932</u>		<u>110</u>	<u>128</u>
Jan.	110		125
Feb.	110		125
Mar.	110		125
Apr.	110		125
May	110		125
June	110		125
July	110		125
Aug.	110		125
Sept.	110		125
Oct.	110		125
Nov.	110		125
Dec.	110		125
<u>1933</u>		<u>114</u>	<u>125</u>
<u>1934-39</u>		<u>125</u>	<u>125</u>

*Source: New Zealand Official Year Books.

TABLE 17*

INTEREST PAID ABROAD ON NEW ZEALAND GOVERNMENT DEBT
(£N.Z.000)

Year Ending March 31	Paid in London	Paid in Australia	Total
1919-20	3,555	126	3,681
1920-21	3,999	141	4,140
1921-22	4,488	97	4,585
1922-23	4,978	97	5,075
1923-24	4,978	87	5,065
1924-25	5,299	129	5,428
1925-26	5,460	154	5,714
1926-27	5,711	174	5,885
1927-28	6,089	182	6,271
1928-29	6,698	269	6,976
1929-30	6,535	293	6,828
1930-31	7,116	305	7,421
1931-32	7,135	205	7,340
1932-33	6,627	145	6,872
1933-34	7,416	156	7,572
1934-35	7,401	153	7,554
1935-36	7,156	97	7,253
1936-37	6,617	80	6,697
1937-38	6,608	54	6,662
1938-39	6,606	47	6,653

*Converted from data in Table 15.

TABLE 18*

NEW ZEALAND LOCAL AUTHORITIES' DEBT
(£000 Face Value)

Year at March 31	Loans Other Than from Government	Loans from Government	Total
1920+	24,608	5,580	30,188
1921+	26,187	5,918	32,105
1922+	30,266	6,479	36,745
1923+	36,079	6,112	42,191
1924+	39,110	7,428	46,538
1925+	45,721	7,633	53,354
1926+	51,727	7,693	59,420
1927	57,758	7,624	65,382
1928	60,346	7,467	67,013
1929	63,372	7,303	70,675
1930	65,393	7,167	72,560
1931	67,136	7,005	74,141
1932	66,926	6,923	73,849
1933	67,014	6,898	73,912
1934	66,664	6,700	73,364
1935	65,988	6,483	72,471
1936	65,081	6,445	71,526
1937	63,110	6,609†	69,719
1938	63,182	6,734†	69,916
1939	63,030	7,132†	70,162

*Source: New Zealand Official Year Books.

†Hospital Board indebtedness not included (£1,369,973 in 1927 and approximately £685,000 in 1924). ‡Estimated.

TABLE 19*

LOCAL AUTHORITIES' DEBT HELD OUTSIDE NEW ZEALAND†
(£000 Face Value)

Year at March 31	Domiciled in London	Change from Pre- vious Year	Domiciled in Australia	Change from Pre- vious Year
1920	7,754†	745	.....	.....
1921	8,449†	695	.....	.....
1922	9,070†	621	.....	.....
1923	10,371†	1,301	.....	.....
1924	9,494	2,072†	2,949	.....
1925	12,580	3,086	3,728	779
1926	12,404	- 176	4,589	861
1927	13,125	721	5,950	1,061
1928	17,206	4,081‡	7,072	1,422
1929	18,316	1,110	7,386	314
1930	17,715	- 601	8,200	814
1931	17,533	- 182	8,575	375
1932	17,363	- 170	7,282	-1,293
1933	17,003	- 360	5,730	-1,552
1934	16,748	- 256	4,198	-1,532
1935	16,089	- 659	2,565	-1,633
1936	15,948	- 141	2,200	- 365
1937	13,860	-2,088	2,165	- 35
1938	13,329	- 531	2,022	- 143
1939	12,776	- 553	1,981	- 41

*Source: New Zealand Official Year Books.

†Excluding government loans and Hospital Board indebtedness.

‡Includes debt held in Australia.

§According to the Year Book for 1930, p. 700, debt domiciled in London decreased £710,274. No explanation is given for this statement.

Government and Local Bodies' Revenue

As pointed out earlier in this chapter, it is practically impossible to determine the total revenue of the New Zealand government. For example, the government-owned railroad pays part of its income to the general revenue fund, and at the same time receives part of its income from this same fund in the form of a subsidy. However, an attempt is made in Table 22 to show the main sources of revenue of the government in order that the relative magnitude of the annual fluctuations can be seen. Although the frequent changes in taxes and charges make year-to-year comparisons hazardous, there is some value in the figures presented.

As can be seen from the table, all revenue items were affected by the 1930 depression. Customs and excise duties, which form a large part of the total income, reacted sharply because they are collected currently and consequently reflect changes in inventory policy as well as in retail purchases of imported goods. Income

TABLE 20*

INTEREST PAYABLE ABROAD ON LOCAL AUTHORITIES' DEBT+
(£Stg.000)

Year at March 31	Payable in London	Payable in Australia	Total
1920	358†	...	358
1921	376†	...	376
1922	448†	...	448
1923	525†	...	525
1924	475‡	133‡	608
1925	636	192	828
1926	630	230	860
1927	663	306	969
1928	870	370	1,240
1929	931	388	1,319
1930	900	436	1,336
1931	896	457	1,353
1932	895	391	1,286
1933	881	307	1,188
1934	862	227	1,089
1935	829	134	963
1936	821	116	937
1937	701	91	791
1938	680	106	786
1939	654	104	758

*Source: New Zealand Official Year Books.

†Excluding Hospital Board indebtedness.

‡Includes interest payable in Australia (total estimated from report on loans raised abroad classified by interest rates).

§Estimated from loans raised abroad classified by interest rates.

TABLE 21*

INTEREST PAYABLE ABROAD ON LOCAL AUTHORITIES' DEBT
(£N.Z.000)

Year at March 31	Payable in London	Payable in London	Total
1920	358	...	358
1921	376	...	376
1922	448	...	448
1923	525	...	525
1924	475	133	608
1925	636	192	828
1926	630	230	860
1927	663	306	969
1928	870	370	1,240
1929	931	388	1,319
1930	909	440	1,349
1931	932	475	1,407
1932	985	430	1,415
1933	1,004	350	1,354
1934	1,077	284	1,361
1935	1,036	168	1,204
1936	1,026	145	1,171
1937	876	114	990
1938	850	133	983
1939	818	136	946

*Converted from data in Table 20.

taxes lag behind customs revenue, since the tax collected in any year is based on the income in the previous year. The variations in income-tax collections are relatively small, mainly because the major taxable incomes are salaries, profits of trading corporations, and incomes from investments—all of which were quite stable. Since agricultural income and wage income are almost entirely exempt from tax payments, the most flexible items were thus eliminated. Manufacturing profits are not only small but fairly steady because of the dominance of processing industries. The marked increase in "other" tax revenues is due to the introduction of an employment promotion tax in December, 1930, and to a sales tax in February, 1933. The other elements included in this group, notably death duties and amusement taxes, are quite steady.

Of the so-called trading corporations, revenue from the Post and Telegraph Office is fairly stable, while railway income is sensitive to business conditions. Interest payments on state advances show very little annual change, some defaults occurring during the depth of the depression. The major cause of the drop in income from this source was the voluntary reduction of interest rates by the government.

All in all, the flexibility of New Zealand government revenues prior to 1930 lay in the relative importance of customs revenue and the sensitivity of railway income. In the future, however, there will be wider fluctuations, owing to the introduction of the wage levy and the sales tax.

The revenue of local bodies shows very little change from year to year, inasmuch as the main sources are taxes on real property and the income from utilities such as harbors, electric-power stations, water distribution, etc. A summary of total revenues is shown in Table 23.

Government Expenses

The fluctuations in governmental revenue take on added importance in light of the constant tendency for government expenses to increase. Table 24 presents an estimate of the major items of recurrent expenses, although it is by no means complete or accurate. In drawing up such an estimate, major difficulties are encountered in the inability to separate maintenance and construction costs in the highways account, electric supply account, etc., and in the fact that depreciation is included in the railways and post office accounts but not in other accounts. Furthermore, an increase in inventories is treated as an expense in most accounts, and, as usual, there are many interaccount payments. However, the basic trend in expenses can be

TABLE 22*
SELECTED ITEMS OF NEW ZEALAND GOVERNMENT REVENUE
(£N.Z.000)

Year Ending March 31	Customs and Excise Duties	Income Taxes	Other Taxes	Post Office Receipts	Railway Receipts†	Interest on Public Funds	Sale of Electric Energy	Superan- uation Receipts‡	Land Settlement and State Ad- vances Income§	Total
1920-21 ...	8,769	8,248	5,167	2,590	6,908	1,296	53	646	1,614	35,291
1921-22 ...	5,544	6,002	4,814	2,812	6,643	1,252	65	693	1,614	29,449
1922-23 ...	6,766	3,832	5,118	2,688	6,728	1,303	92	686	1,755	28,968
1923-24 ...	7,994	3,782	4,888	2,689	6,984	645	119	840	1,844	29,785
1924-25 ...	8,340	3,380	4,977	2,889	7,113	1,188	136	912	2,010	30,951
1925-26 ...	9,203	3,369	4,912	3,110	8,101	1,503	234	1,017	2,330	33,779
1926-27 ...	9,017	3,422	5,190	3,220	7,980	1,465	340	1,106	2,543	34,283
1927-28 ...	8,872	3,273	5,362	3,330	8,035	1,576	368	1,142	2,808	34,766
1928-29 ...	9,564	3,310	5,957	3,446	8,249	1,755	414	1,188	2,813	36,669
1929-30 ...	10,636	3,534	6,420	3,642	8,228	1,800	607	1,257	3,008	39,132
1930-31 ...	9,627	4,004	5,247	3,707	7,572	1,726	686	1,508	2,813	36,690
1931-32 ...	7,989	4,448	4,969	3,715	6,509	1,477	648	1,193	2,691	33,659
1932-33 ...	8,113	3,557	8,034	3,293	6,034	1,245	824	1,187	2,431	34,718
1933-34 ...	8,496	2,961	10,014	3,200	6,333	1,225	880	1,117	2,515	36,741
1934-35 ...	9,612	3,796	11,330	3,343	6,627	1,296	932	1,155	2,882	40,973
1935-36 ...	10,566	4,581	10,329	3,550	7,004	1,129	983	1,186	2,687	42,015
1936-37 ...	12,347	6,619	12,198	3,886	7,791	917	1,136	1,161	2,247	48,302
1937-38 ...	14,006	9,079	13,683	4,302	8,634	919	1,385	1,392	2,929	56,329
1938-39 ...	14,167	9,303	14,294	4,688	9,345	838	1,602	1,465	2,830	58,532

*Source: New Zealand Official Year Book.

†Excluding subsidies.

‡Members' contributions and interest income of Public Service, Railways, and Teachers superannuation funds, and the National Provident fund.

§Computed from detailed statistics published in the Journal of the House of Representatives of New Zealand, Parliamentary Papers B-1 and B-13. Receipts of Public Debt Sinking Funds Branch are included in interest on public funds.

TABLE 23*

REVENUE OF NEW ZEALAND LOCAL AUTHORITIES

Year Ending March 31	Total Revenue
1920	£ 7,630,795
1921	8,885,964
1922	9,854,677
1923	10,521,732
1924	11,149,771
1925	12,180,964
1926	13,373,566
1927	14,265,945
1928	15,401,943
1929	15,428,071
1930	16,757,718
1931	16,264,645
1932	15,194,069
1933	14,150,973
1934	14,229,667
1935	14,678,729
1936	15,138,403
1937	15,973,790
1938	17,546,647
1939	18,722,176

*Source: New Zealand Official Year Books.

roughly approximated.

Inasmuch as the revenue and expenditure items in Tables 22 and 24 represent over 90 per cent of the true total for the government, the respective totals are shown graphically in Figure 4.³ The fact that revenues are slightly less than expenditures does not necessarily indicate that the government is operating at a deficit, as the revenue items are less completely reported in the tables than expenses. However, the direction of the movements may be considered representative of the true figures.⁴

³Since 1935 the New Zealand Treasury has prepared a consolidated income and expense report which includes accounts outside of the Public Account and which eliminates interaccount transfers. The figures from these reports are:

	Year Ended March 31			
	1935	1936	1937	1938
Income	£43,989,039	£43,895,573	£50,903,636	£59,728,942
Expense ...	41,891,253	42,643,409	46,673,231	52,896,233

(New Zealand Official Year Books.)

⁴Cf. also L. W. Holt, "The New Zealand Budgetary Problem," Economic Record, IX (June, 1933), 115 ff., where a series of adjustments have been made to the budget reports of the Minister of Finance. This article (and the following ones, Economic Record, X [June, 1934], 91, and [December, 1934], 274) does not take into consideration the income and expenditures of accounts outside the Public Account, and its main purpose is to show more accurately the "normal" expenditures postponed or not reported during the depression years.

TABLE 24*

SELECTED ITEMS OF NEW ZEALAND GOVERNMENT EXPENSE
(£N.Z.000)

Year Ending March 31	Interest and Exchange	Revenue Allocated to Highways and Public Works	Pensions	Education	Other Depart- mental	Unemploy- ment Relief	Superan- uation Disburse- ments†	Post Tele- graph‡	Railroad Operating Expenses§	Total
1920-21	8,620	500	3,056	3,224	6,774	.....	366	2,592	5,637	30,769
1921-22	9,280	.....	2,717	3,497	6,784	.....	426	2,452	6,238	31,394
1922-23	9,855	.....	2,478	3,187	6,241	.....	546	2,115	5,502	29,924
1923-24	9,632	1,129"	2,304	3,243	6,090	.....	702	2,121	5,404	30,625
1924-25	9,891	1,127"	2,316	3,643	6,400	.....	742	2,416	5,545	32,080
1925-26	10,184	808"	2,400	3,814	8,009	.....	863	2,410	6,468	34,956
1926-27	10,595	549"	2,416	3,910	8,116	.....	901	2,346	6,491	35,324
1927-28	10,954	1,456"	2,549	3,720	8,219	75	980	2,300	6,685	36,988
1928-29	11,340	1,172	2,658	3,886	8,445	69	936	2,442	6,849	37,797
1929-30	11,976	1,420	2,750	4,058	8,537	112	1,107	2,630	7,359	39,949
1930-31	12,318	1,742	2,852	4,102	7,493	160	1,131	2,640	6,883	39,323
1931-32	12,586	1,686	3,075	3,410	7,682	1,135	1,314	2,165	5,671	38,705
1932-33	12,482	1,060	3,139	2,816	6,364	3,912	1,493	2,019	5,184	38,469
1933-34	13,455	1,080	3,260	2,741	6,650	4,243	1,407	2,058	5,247	40,141
1934-35	12,293	1,455	3,440	2,871	7,439	3,912	1,486	2,217	5,540	40,653
1935-36	11,927	1,976	3,770	3,257	7,930	4,883	1,493	2,480	5,953	43,669
1936-37	11,584	2,334	5,073	3,976	10,591	4,414	1,522	2,874	6,887	49,258
1937-38	12,052	2,647	6,467	4,619	12,856	4,239	1,592	3,312	8,001	49,318
1938-39	13,171	2,852	6,934	5,100	12,340	6,474	1,675	3,686	8,644	50,976

*Source: New Zealand Official Year Books.

†Payments to members and refund of contributions for Public Service, Railways, and Teachers superannuation funds and National Provident Fund (except maternity benefits which are voted separately and are included in other departmental expenses).

‡Excluding depreciation and interest.

§Excluding interest. "Expenditures out of revenue account."

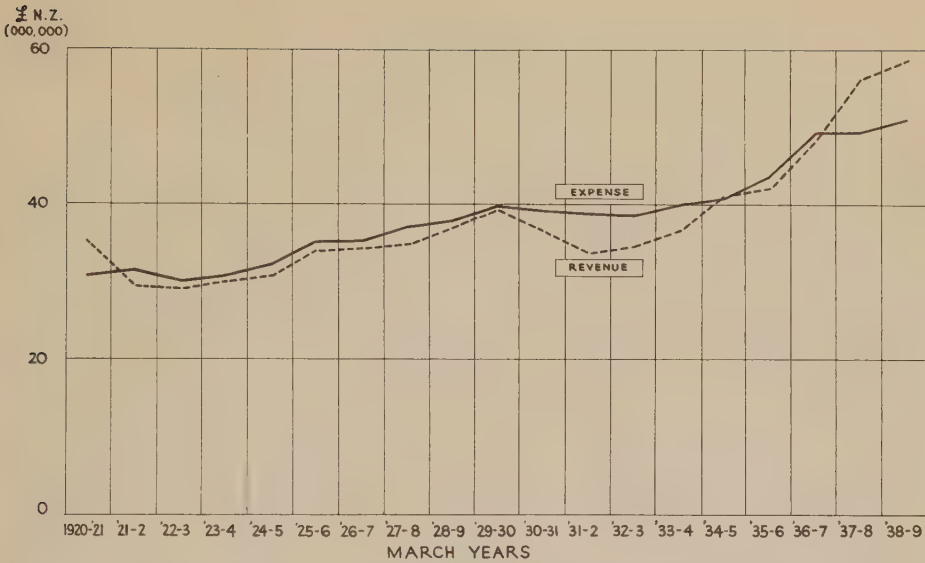


Fig. 4 - Approximate revenue and expense of the New Zealand Government 1920-1939 (FROM TABLES 22 AND 24)

A point of particular interest is the fact that the government operated at a deficit during the fiscal years 1930-31 through 1933-34 in spite of the determined efforts to balance the budget. In 1937-38 and 1938-39 the government showed a surplus in spite of the sharp increase in expenditures introduced by the Labor party. It is possible, of course, that the deficit would have been larger and the surplus greater had the respective parties-in-power been reversed.

CHAPTER IV

TARIFFS AND TRADE AGREEMENTS

Early History

In 1841 New Zealand was made a Crown Colony, definitely independent of New South Wales, and in that year the first tariff was established. This tariff was primarily a revenue measure and remained such until after New Zealand became a self-governing Dominion in 1853. Of particular interest, however, is the fact that during the years 1841-44 and 1846-51 discriminatory duties favoring British imports were granted. From 1841 to 1844 the rates on unspecified items were free if British and 10 per cent if of foreign origin; from 1846 to 1851 the corresponding rates were 10 per cent and 12½ per cent.

By 1853 the tariff was quite elaborate, containing many specific duties designed for revenue purposes. A start had been made with ad valorem duties, the rate being mainly 10 per cent. Only five items were exempt from duties—glass bottles, bullion, live animals, books, and seeds. In the ensuing years many minor revisions were made, mainly increasing the rates on particular items and changing specific to ad valorem rates. By 1888 the most usual rate had become 20 per cent instead of the 10 per cent which had ruled from the first tariff.

A distinct change in tariff policy is observable in the year 1895. Several items were singled out for protective treatment, while, on the other hand, many reductions were made, mainly on foodstuffs. From this year onward the tariff, which before had been used primarily to secure revenue, became a tool for redistributing income and for encouraging particular types of industry.

In 1903 a discrimination of 10-20 per cent in favor of British goods was incorporated in the tariff for some 38 items, achieved in the main by increasing the duties by this amount on imports from countries not members of the British Empire. The discrimination in favor of British goods was extended to 194 items in 1907, although the rate of preference was not appreciably changed. Further additions to the preference list were made in the tariff acts of 1915 and 1917, particularly among textile items, and a prime duty of 1 per cent was added along with a number of increases on specific items in order to raise revenue to meet the heavy expenses of the war.

In the early years of its existence as a dominion the New Zealand government made several attempts to secure the right to make reciprocal trade agreements with the Australian states and other British dominions. Permission was granted in 1895, whereupon definite steps were taken to negotiate agreements with South Australia and Canada. The negotiations, however, were unsuccessful and, except for a reciprocal agreement with South Africa in 1906 to obtain the latter's British preferential duties, no further action along this line was taken until after 1921.

Thus in 1920 New Zealand had a combination revenue and moderately protective tariff, with discrimination in favor of British goods ordinarily achieved by increasing the duty 10 per cent ad valorem (the usual rate being 20 per cent if the goods were from Britain and 30 per cent if from other countries). The "preferences" were extended to all British dominions as well as to Great Britain in spite of the fact that the other dominions did not grant reciprocal treatment.¹

The Tariff of 1921

The Customs Duty Act of 1921 presents a definite statement of the tariff policy that had been evolving since 1895. It was generally agreed that the tariff needed a complete overhauling, as no major changes had been made since 1907, while numerous piecemeal provisions had been hurriedly enacted during the war period. A specially appointed tariff commission, headed by the administrator of customs, submitted an elaborate report outlining the changes to be made. This report was adopted by the government and most of its important provisions incorporated into the law. In introducing the bill, the following statement was made by the minister of customs, the Honorable Downie Stewart:

The following directions as to procedure have received the approval of the government.

1. To extend, wherever possible, the preference to British Dominions.
2. To provide machinery to enable the modification of the operation of the schedules of tariff imposing preferential surtaxes in respect to countries willing to reciprocate with New Zealand and to provide power to impose special duties upon countries which are held to have unduly penalized or discriminated against exports from New Zealand or against New Zealand trade.
3. Not to withdraw any protection hitherto granted to industries established in New Zealand except for the most cogent reasons and with the approval of the government.

¹For a more complete discussion of tariff policies before 1921 see United States Tariff Commission, Colonial Tariff Policies (Washington: Government Printing Office, 1922), pp. 763-78.

4. To indicate where duties might be remitted to reduce the cost of living.
5. To indicate what luxuries might if necessary bear higher taxation.
6. To place on the free list raw materials which cannot be economically obtained or produced in New Zealand.
7. To refrain as far as possible from placing duties upon machinery peculiar to any industry, and especially to the primary industries of the country.
8. To provide power to suspend or to impose duties from time to time on the recommendation of the Department of Industries and Commerce, or any body duly authorized by parliament, such suspensions or impositions of duties not to have effect until ratified by parliament.
9. To provide machinery to prevent dumping or unfair competition with industries established in New Zealand.
10. To grant protection to new industries only where it can be shown that a substantial amount of capital is invested, that the industry is fully equipped with the most modern appliances, that its output is likely to form a reasonable proportion of the total needs of the Dominion, and that the goods produced are reasonably comparable with those produced abroad.²

In the debates on the tariff the opposition claimed that the proposals gave too much power to the ministers and, in several specific cases, argued that duties were being imposed on necessities. However, the law passed without change and thus gave full expression to the policy adopted by the government. Discrimination in favor of British goods was increased by raising the general rate 5 per cent while holding the British rates constant. A schedule of rates intermediate between the general and preferential rates, to be used in negotiating reciprocal trade agreements, was introduced for the first time. Protection against unfair competition was achieved by an antidumping clause patterned after the Canadian provision and by an "exchange dumping" clause which permitted the minister of customs to apply an extra duty on goods imported from a country whose currency had depreciated in terms of sterling. Provision was also made for the temporary suspension of duties on the recommendation of the Department of Industries and Commerce.

The protective elements in the tariff were freely discussed in parliament and for the most part were retained or slightly increased.³ The tariff commission had recommended that the profit of those companies engaged in protected industries be periodically investigated by the government and that action should be taken to promote research in these industries as well as to provide education for the mechanics and skilled workmen required. However, these recommendations,

² New Zealand Parliamentary Debates, CVIIIIC (November-December, 1921), 669.

³ Ibid., p. 665.

which furnished whatever basis there might have been for a rational protective policy, were not incorporated into the law.

In spite of considerable discussion concerning a permanent tariff commission, the government did not support the scheme, and it was voted down when proposed in the House of Representatives. The government took the position that the minister of customs was capable of keeping the tariff up to date and that, with the comprehensive nature of the new tariff, few changes would be required.

A search through the proclamations in the New Zealand Gazette (the official publication of the New Zealand government) indicates that the administrative provisions of the new tariff were used sparingly. On July 6, 1922, it was announced that dumping duties would be reserved for important cases and that where possible three months' notice would be given.⁴ In July, 1931, it was announced that the dumping duties would be imposed if necessary, without the usual three months' notice, on account of the disturbed economic conditions.⁵ Actually, however, only four instances were found where a dumping duty had been applied—on wooden doors in July, 1922; on brass cocks in December, 1922; on flour in December, 1924; and on Indian pig iron in September, 1926 (withdrawn August 12, 1937, in spite of the fact that the foreign domestic price continued higher than the foreign export price, the right to reimpose the duty being reserved).⁶

In the administration of the depreciated currency duty two devices were used. First of all, a list was prepared of items which were to be subject to the duty, and this list was revised from time to time.⁷ Second, a schedule of duties varying with the amount of the depreciation was devised and was applied to specified countries.⁸

⁴New Zealand Gazette, 1922, p. 1760. ⁵Ibid., 1931, p. 2083.

⁶Ibid., 1922, pp. 1837 and 3182; 1924, p. 3117; 1926, p. 2085; 1937, p. 1808.

⁷Ibid., 1922, p. 652; 1923, p. 1566; 1924, p. 885; 1924, p. 2883.

⁸Ibid., 1923, p. 1732; 1923, p. 2477. The scale of duties, in percentages, is as follows:

Depreciation from Mint Par	Duty
10-20	2 1/2 ad valorem
20-30	5
30-40	7 1/2
40-50	10
50-60	12 1/2
60-70	15
70-80	17
80-90	20
Over 90	33 1/3

Germany, Austria, and Hungary not only paid the highest duty but were excluded from many of the revisions reducing the list of items. Denmark, Greece, Norway, Spain, and Italy were exempted from the depreciated currency duty by a proclamation on October 26, 1922, even though their moneys were depreciated in terms of mint par.⁹ After 1925 no depreciated currency duties were levied, although the law still continues in force. Table 25 shows the amounts of the duties collected during the period 1921-25.

TABLE 25*

DEPRECIATED-CURRENCY DUTY COLLECTED

Year	Amount
1921	£ 6,777
1922	24,386
1923	11,402
1924	13,447
1925	2,896

*Source: New Zealand Official Year Books.

A major weakness of the "exchange dumping" provisions became apparent in 1930, when Australian currency fell to 70 per cent and New Zealand currency to 90 per cent in terms of sterling although continuing to exchange at par with one another through the trading banks.¹⁰ As a result, an Australian exporter could sell goods valued at £A.100 for £N.Z.80, convert the N.Z. currency to £stg.72, and reconvert the sterling to Australian currency at a profit. Under the law it was impossible to assess a duty on imports from Australia, and, according to Neale, recourse was taken against Australia through the general dumping clause.¹¹ The wording of the law was later revised to include the Australian situation, but, the exchange position having changed in the meantime, there was then no need for assessing a duty. Neale points out that a further weakness lies in the failure of the law to distinguish between depreciated and depreciating currencies, but this has to a large extent been offset by the administrative procedures.

The other novel features of the 1921 tariff, namely, the

⁹Ibid., 1922, p. 2858.

¹⁰The exchange of currencies at par was restricted to bona fide trade transaction. Cf. Monetary Committee Evidence, op. cit., p. 30.

¹¹E. P. Neale, "New Zealand Customs Tariff Policy," Economic Record, IX (June, 1933), 41.

intermediate rates and the clause providing for remissions of duty, were never used and were discontinued in the 1927 tariff act.

The Period 1921-31

The relatively prosperous years that followed the 1921 tariff enabled the government to stress the nonrevenue aspects of their tariff policy. Revisions aimed at lowering the cost of living were the elimination of the duties on tea and sugar of British origin in 1923, the reduction of duty on tobacco in 1924, and the placing of textile piece goods (other than of wool or hair, which competed with local manufacture), linoleum and other floor cloth, and table china-ware of British origin on the free list in the 1927 tariff. The last change may have been affected by the fact that 1928 was an election year and lower tariffs were a part of the competing National party's platform.

Considerable attention was given to increasing the protective nature of the tariffs, as illustrated by automobile body duties (Table 26 shows the duty payable on a body valued at £100 under the various tariffs from 1915 onward). A more interesting example is dressed timber, on which the duty was increased from 4s. per 100 foot to 7s. 6d. in 1927. An examination of the official organ of the

TABLE 26*

BODY DUTY COLLECTIBLE ON AN AUTOMOBILE VALUED
AT £200 (BODY, £100; CHASSIS, £100)

Under Tariff Ruling in Year	Amount Collectible	
	Body of British Origin	Body of Foreign Origin
1914	£20	£20
1915	10	20
1921	22+	37+
1926	30	65
1930	33 1/8	79 8/10

*Source: New Zealand Official Year Books.

+Approximate.

Sawmillers Association shows that almost every protectionist argument was advanced, from articles on the use of Chinese labor in the logging operations in the Pacific Northwest, to statements of the taxes and freight contributed to the government by the New Zealand timber industry.¹² The following editorial comment on the 1927 tariff

¹²New Zealand Industrial Bulletin (Wellington: New Zealand Employers' Federation, monthly), contains a section "Sawmilling Industry," which is the official organ of the Dominion Federated Sawmillers Association (Incorporated). See particularly the 1927 issues.

speaks for itself:

By the time this reaches the readers of this section of the "Bulletin" the full provisions of the Tariff Amendment will have become known. But, even so, it may not be any less interesting to look backwards upon the position as it presents itself at the time of writing.

And even in viewing the present position one is forced to look still farther back to the time when the Federation was wrestling with the problem as applied to timber, during the passage of the Tariff Bill, 1921-22.

It may safely be said that though we failed to secure any reasonable protection upon that occasion, the very strenuous work that was put in at that time laid the foundation to whatever success may attend our efforts in 1927.

Nor must it be forgotten that during the 1926 session of Parliament the Federation engaged in a most vigorous campaign having for its object the education of the "powers that be" respecting the necessity of some adequate protection of our industry.

Although the proposed duty of 5/- on rough sawn and 7/6 on dressed is not all that might be considered necessary to fully protect the industry, we, nevertheless, have reason to thank the Government for the measure of protection that will be afforded, and in view of the strenuous opposition to any such protection in previous years, our appreciation should be doubly stressed.

It is gratifying to be able to report that all members of the industry have responded most willingly to any requests that have been made for information, and that there has been a complete absence of any conflict respecting any representations that have been made to the Government. The foregoing applies equally to the workers engaged in the industry and to their organizations from whom the Federation has received valuable assistance in substantiating our claim for protection.¹³

The most important step in increasing the protective aspect of the tariff was the narrowing of the definition of goods entitled to British preferential rates. Prior to 1926 it had been required that one-fourth of the factory value of an item be material produced or labor performed in the British Empire. After that date the requirement was raised to one-half the factory value, and there was even discussion of placing the fraction at three-fourths of the factory cost.

Discrimination in favor of British goods was increased in this period by confining reductions in duty to the British rate and by advancing the general rate 5 per cent on most dutiable items in the 1927 tariff. Preference was also extended to additional items during this period.

An interesting experiment introduced in the 1927 tariff was a sliding scale of duties placed on wheat and flour, stabilizing the price of wheat at 6s. 7d. per bushel (5s. 6d. plus 1s. 1d. duty) and the price of flour at £16 10s. per ton (£13 plus £3 10s. duty). The duty was to vary inversely to the import price in $\frac{1}{2}$ d. units in

¹³Ibid., October 10, 1927, p. 438.

the case of wheat and ls. units in the case of flour. The purpose of the sliding duty was to protect farmers against falling world prices and consumers against rising prices and, by thus stabilizing prices, to encourage sufficient wheat production to meet the demands of domestic consumption. It should be noted that there was no limit to protection against falling prices, while protection against rising prices was limited to the base price plus duty. The partial success in stabilizing acreage planted is shown in Table 27 and Figure 5. Whereas the fluctuations in acreage prior to 1927 were sharp, reflecting the changing world price of wheat, after 1927 the influence of world price changes in wheat was largely neutralized, although further changes in the basic rate of duty were required from time to time. Wheat acreage, however, was still subject to marked variation—increasing when the prices of other agricultural commodities declined and decreasing when alternative uses of the land became more attractive.

TABLE 27*

ACREAGE PLANTED TO WHEAT COMPARED WITH EXPORT
PRICES AND WHEAT PRICES

Year Ended June 30	Acreage Planted	Export Price Index (1909-13 = 1000)	Price of Wheat Per Bushel† (Tuscan)
1921	219,985	1713	93.53d.
1922	352,918	1363	72.10d.
1923	275,775	1610	66.71d.
1924	173,864	1788	67.00d.
1925	166,964	1893	80.43d.
1926	151,673	1648‡	87.74d.
1927	220,083	1514‡	76.35d.
1928	260,987	1647‡	73.54d.
1929	255,312	1668‡	74.30d.
1930	235,942	1397‡	75.49d.
1931	249,014	1052‡	73.38d.
1932	268,756	934‡	59.88d.
1933	302,531	861‡	58.38d.
1934	286,271	1089‡	58.88d.
1935	225,389	1046‡	58.88d.
1936	248,639	1205‡	60.33d.
1937	221,790	1397‡	60.33d.
1938	185,949	1386‡	60.33d.
1939	189,281	1320‡	60.33d.

*Source: New Zealand Official Year Books.

†Average prices paid by millers f.o.b. South Island Ports (calendar years). Reported by New Zealand Census and Statistics Department in letter to author, January 6, 1943.

‡Average for twelve months ending June 30.

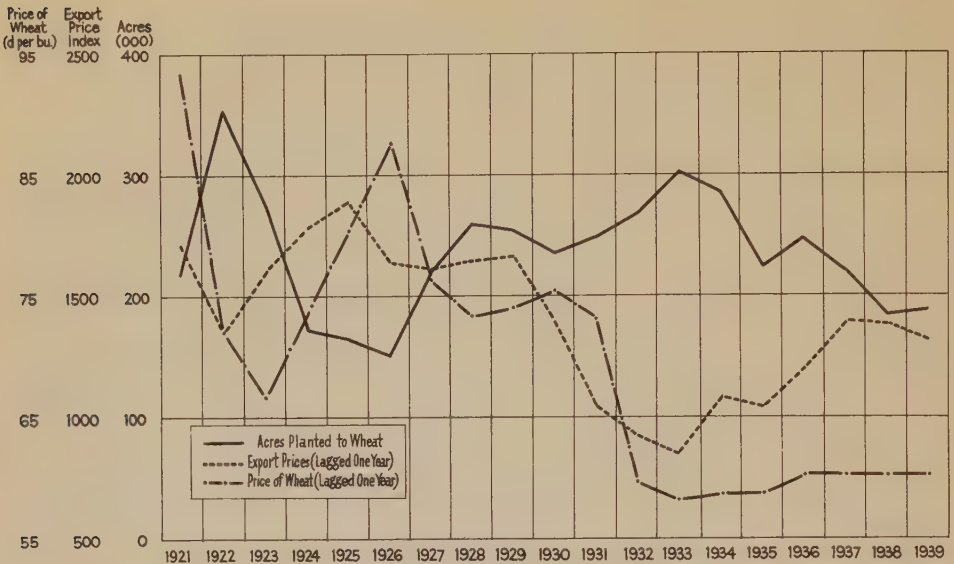


Fig.5 — Relation of wheat prices and export prices (all commodities) to acres of wheat planted in New Zealand (FROM TABLE 27)

In connection with the above table it should be borne in mind that direct control over wheat prices was exercised by the government until 1923 and that from 1933 on a Wheat Purchase Board fixed the selling price and controlled the distribution of both wheat and flour, imports of wheat being prohibited except by consent of the Board (acting through the Department of Industries and Commerce) from 1936 on. The sliding scale duties are only one phase of the price control that has been exercised over this commodity.¹⁴

In 1929 the development of the tariff policy was marked by the introduction of a series of purely revenue measures. This change of policy was intensified by the impact of the 1930 depression, reflected at once in lowered customs income. The first revenue measure was an increase of the "primage" duty from 1 per cent to 2 per cent late in 1929.¹⁵ This was replaced in 1930 by a surtax of one-twentieth of the total duty on certain goods, and nine-fortieths of the duty on all other imports (except flour and wheat).

¹⁴See also Allan G. F. Fisher, "New Zealand Wheat Duties," Economic Record, VIII (December, 1932), 262.

¹⁵The original primage duty of 1 per cent had been levied on all goods imported (with a few exceptions) as a wartime revenue measure in 1915.

The surtax was in response to the vigorous opposition of the Reform party (which had been defeated in the 1928 elections) to the primage duty, which they considered "unscientific." The desire for revenue mixed with the traditional policy of British preference is shown in the increase of the general tariff to 40 per cent, thus making the discrimination against non-British goods 25 per cent instead of 20 per cent ad valorem.

Further increases in revenue duties were imposed in the 1931 tariff act, notably on sugar, tea, linoleum, textile piece goods, and chinaware—all of which had been subject to reductions in the previous period. Additional duties were levied on such luxury items as furs, cameras, gramophones, records, etc., and a primage duty of 3 per cent placed on most goods that were otherwise admitted free of duty. Protective duties were not entirely overlooked during this period, the body duties on automobiles being increased slightly in 1930, and the tariff on timber increased sharply in 1931. These measures, however, are overshadowed by the revenue measures imposed.

Throughout this entire period the Labor party raised continuous objections to revenue duties. Their policy was to have either no duty or a prohibitive protective tariff, relying on increased income taxation to replace the revenue thus lost through customs. As can be seen, their influence was negligible (particularly so after the coalition of the National and Reform parties in 1931 and their subsequent success in the general elections), but the statement of policy is of interest in view of the later political developments.

The Ottawa Agreement

The year 1932 marks a reversal of the protective and revenue trends of the New Zealand tariff, a change which can be traced to a single factor—the Imperial Economic Conference in Ottawa in July, 1932. Believing that the way out of depressed conditions was a better market in Great Britain for New Zealand exports, the New Zealand delegation, headed by Mr. Coates and Mr. Downie Stewart, made a specific request that a quota be applied to non-Empire products and that steps be taken to raise price levels.¹⁶ The British government, represented by Mr. Baldwin, devoted its efforts to urging increased preferences through the lowering of inter-Empire barriers.¹⁷

According to a trade agreement signed during the conference by

¹⁶Imperial Economic Conference at Ottawa, 1932, Summary of Proceedings and Copies of Trade Agreements (London: H.M. Stationery Office, 1932), pp. 81-82.

¹⁷Ibid., p. 74.

the United Kingdom and New Zealand, Great Britain agreed to accord free entry of New Zealand products for at least three years after November, 1932; to refrain from reducing the discriminatory duties then in existence on eleven minor items when coming from non-British sources, except with the consent of New Zealand; and to increase the tariff on foreign butter, cheese, apples, pears, eggs, condensed milk, milk powder, and honey; and New Zealand agreed to reduce the duty on confectionery, apparel, and hosiery; to put British artificial-silk piece goods on the free list; to remove the surtax on British imports; to maintain a margin of preference of 20 per cent ad valorem in favor of British goods; and not to increase the primage duty of 3 per cent but rather to remove it as soon as financial conditions permitted.

New Zealand further agreed to restrict protective tariffs against United Kingdom products to those industries which were reasonably assured of sound opportunity for success and to undertake an inquiry into all protective duties with a view of reducing the duties to a level which would give United Kingdom producers an opportunity to compete on a reasonable basis.¹⁸ The United Kingdom in turn agreed to a quota plan for meats under which imports from South America were to be gradually reduced 35 per cent below the volume in the twelve months ending June 30, 1932. New Zealand (and Australia) agreed to hold future deliveries of beef, lamb, and mutton to a figure not exceeding their shipments during the same period. The United Kingdom was to place no further restriction on New Zealand meat prior to July, 1934.¹⁹

As soon as the agreement was signed, the reductions in duty were put into effect. The exemption from the surtax was extended to all British countries except Canada, the Union of South Africa, Eire, Newfoundland, and India. The 2 per cent primage, which Australia had been paying instead of the surtax, was removed at this time. Additional discrimination against non-British goods was established on cocoa beans, raw coffee, cigars, rum, asphalt, spices, and paper, by increasing the general rates. And, finally, a Tariff Commission was appointed to investigate the possibility of reducing protective duties. There is no question but that the New Zealand government lived up to the spirit of the Ottawa Conference.

Following the report of the Tariff Commission, the Customs Duty

¹⁸Ibid., pp. 27-29 (supplementary volume).

¹⁹W. B. Sutch, "The Ottawa Agreement and After," Economic Record, XV (October, 1939, Supplement), 33.

Act of 1934 further reduced the protective and revenue duties on over one hundred items. Protective duties were increased on only three items (maize, bathtubs, and gas meters), although a revenue duty was placed on cigarette paper (a further increase of $\frac{1}{2}$ d. per pound had been placed on sugar the previous year). Additional preference to Britain was granted on automobiles by abolishing the old body duties and substituting a rate of 5 per cent on unassembled vehicles if imported from Britain and 50 per cent if imported under the general tariff. Assembled automobiles were subject to a 15 per cent duty if British, and 60 per cent if foreign. Under the previous tariff an unassembled car had paid 10 per cent if British and 40 per cent if foreign, and an assembled automobile approximately 20 per cent if eligible for the preferential rate and 50 per cent otherwise.

The effect of the 1934 tariff was offset in part by an extension of the effective dates for the remission of some of the protective duties (notably nails and putty), and more generally by the decision of the government to peg exchange rates at £N.Z.125 for £100 sterling, which became operative in 1933. The change in exchange rates probably gave more protection than the tariff took away, but at the time it seemed to be more of a short-run factor than the tariff. It should be noted here that duties were assessed on the sterling value even after the exchange had been pegged, thus reducing slightly the percentage of preference hitherto granted British goods.²⁰

The Advent of Import Licensing

In the years between 1934 and 1938 practically no changes were made in the schedule of duties. During this period there was a major change in New Zealand politics, the coalition of the National and Reform parties being heavily defeated in the general elections of 1936 by the Labor party. The platform of the new party paid very little attention to tariff policy (outside of its efforts to negotiate reciprocal trade agreements, which are discussed later), being based mainly on the idea of securing stability and increasing prosperity through the use of public credit and the rationalization of industry.²¹ Actually, however, the social security and other

²⁰In the typical case, a commodity of British origin valued at £stg.100 at the port of entry cost £N.Z.120 in 1930 after payment of the 20 per cent ad valorem duty. In 1934 the cost would be £N.Z.145 (£N.Z.20 for duty, £N.Z.25 cost of securing exchange). The same commodity of non-British origin would have cost £N.Z.140 in 1930 and £N.Z.165 in 1934. In 1930 the landed cost of the non-British good was 16 $\frac{2}{3}$ per cent more than the landed cost of the similar good of British origin having the same value at the port of entry. In 1934 the non-British good had a landed cost in New Zealand currency only 13.8 per cent more than the British good.

²¹J. O. Shearer, "The 'New' Policy of the Labor Party," Economic Record, XV (October, 1939, Supplement), 131.

policies of the government forced up production costs, so that considerable complaint was made by local manufacturers.²² As a result a tariff bill was introduced in February which provided for increased duties on sixty-seven items, most of the increases being protective in nature, such as the general rate on wearing apparel, boots and shoes, radios, hats, etc.²³ In fact, it is claimed that the increase on certain lines of footwear was such as to amount to a virtual embargo.²⁴

Any further development of a tariff policy was interrupted by the rapid decrease in the overseas assets of the banks (see chap. 11, p. 31), which was followed by the imposition of exchange control on December 6, 1938. Part of the control scheme was a system of import licenses, a development which had not been used in a similar crisis in 1930, but which seemed inherent in the general policy of social planning of the Labor party.²⁵ In fact, there seemed to be two policies in the import licensing—a short-run policy of reducing total imports, mainly by prohibiting the purchase of durable consumers goods, and a long-run policy of increasing imports from the United Kingdom by restricting or eliminating entirely the imports from foreign countries.²⁶ Just what the final policy would have been cannot be determined because the declaration of war with Germany in September, 1939, introduced so many extraneous factors that the basic trade policy is overshadowed. However, as Tables 28 and 29 show, very little progress was achieved toward either of the peacetime goals in the few months preceding the outbreak of war.

Trade Agreements

As pointed out before, the New Zealand government has had the authority to negotiate trade agreements since 1895, but prior to 1921 the only treaty in effect was one with the Union of South Africa that had been arranged in 1907. Earlier, unsuccessful attempts had been made to negotiate agreements with South Australia and Canada, but no further action had been taken after 1907.

²²E. P. Neale, "Recent Trade Policy in New Zealand," Economic Record, XIV (June, 1938), 83.

²³U.S. Bureau of Foreign and Domestic Commerce, Commerce Reports, March 12, 1938, p. 252; March 26, 1938, p. 294.

²⁴Neale, "Recent Trade Policy in New Zealand," op. cit., p. 83.

²⁵Ibid.

²⁶See Commerce Reports, February 18, 1939, p. 149, and Sutch, op. cit., p. 42.

TABLE 28*

CLASSIFICATION OF NEW ZEALAND IMPORTS BY TYPES OF COMMODITIES
(Per Cent of Total Imports)

Date	Producers' Materials	Fuels and Lubricants	Producers' Equipment	Transport Equipment	Consumers' Goods	Other Goods
<u>1938</u>						
Jan. ...	33.6	5.8	11.1	18.9	21.9	8.7
Feb. ...	33.6	6.5	11.1	14.2	26.8	7.8
Mar. ...	31.0	6.6	13.1	14.6	25.9	8.9
Apr. ...	31.1	5.3	11.9	18.2	23.4	10.2
May ...	37.0	5.3	13.3	14.2	20.7	9.5
June ...	30.7	5.7	12.6	15.8	23.3	11.9
July ...	30.6	5.2	14.2	16.8	25.7	7.5
Aug. ...	30.0	4.6	12.3	15.6	27.4	10.0
Sept. ...	32.9	4.6	12.1	11.1	27.1	12.3
Oct. ...	29.0	3.3	14.9	12.0	29.7	11.0
Nov. ...	33.4	4.9	13.3	12.6	25.7	10.1
Dec. ...	28.8	7.6	13.4	11.5	28.9	9.7
<u>1939</u>						
Jan. ...	32.7	6.5	10.5	21.2	19.8	9.3
Feb. ...	35.5	3.4	12.5	14.0	25.6	8.8
Mar. ...	31.2	6.8	12.4	14.0	26.2	9.5
Apr. ...	32.2	7.3	13.0	17.1	22.3	9.1
May ...	38.4	6.4	11.6	12.7	20.8	10.1

*Source: Reserve Bank of New Zealand, Statistical Summary.

TABLE 29*

NEW ZEALAND IMPORTS BY COUNTRY OF ORIGIN (MONTHLY DATA)
(£N.Z.000)

Date	United Kingdom	Australia	Canada	Other British	United States	Other Foreign
<u>1938</u>						
Jan.	2,660	499	531	420	706	769
Feb.	2,041	647	355	106	466	780
Mar.	2,550	642	283	150	492	787
Apr.	2,105	531	480	151	590	598
May	1,840	656	351	123	535	576
June	1,772	532	355	146	424	353
July	2,177	534	479	177	622	621
Aug.	2,620	673	362	154	632	621
Sept.	1,989	769	507	207	548	702
Oct.	2,169	442	449	102	576	532
Nov.	2,302+	615+	352+	148+	635+	723+
Dec.	2,302+	615+	352+	148+	635+	723+
<u>1939</u>						
Jan.	2,183	364	706	304	470	697
Feb.	2,356	478	545	174	481	762
Mar.	2,090	626	392	158	456	633
Apr.	1,807	509	372	129	328	633
May	2,530	714	298	316	747	733
June	2,514	654	551	185	559	735
July	1,948	890	329	253	430	614
Aug.	2,230	176	270	201	466	448

*Source: Census and Statistics Department, Monthly Abstract of Statistics.

+Estimated from total of November and December imports.

In the years following World War I, Australia gained an increasing share of New Zealand's import trade, competing severely with domestic manufacturers. It was felt in New Zealand that Australia's high protective tariff not only gave their manufacturers an assured home market but enabled them to push goods into New Zealand. A further point of irritation was the fact that Australia's high general tariff applied to New Zealand, thus preventing any mutual interchange of manufactured goods. As a result, Australia was placed on the general tariff shortly after the 1921 tariff bill was passed, but was extended an invitation to develop a reciprocal trade agreement.

It was found that Australia was quite willing to negotiate, although she objected to the special preference given to wine from South Africa under the trade agreement with that country. For this reason, and also because tobacco was being imported from South Africa in increasing quantities in avoidance of the higher general duty, the South Africa treaty was terminated August 1, 1922, pending further negotiations. On September 1, 1922, a trade agreement with Australia was completed, involving special rates on 129 items. During the negotiations Australia offered to extend to New Zealand the same rates as New Zealand was extending to Great Britain (the New Zealand preferential rates being in general lower than the Australian) if New Zealand would again grant Empire preference to Australia. This offer was refused by the New Zealand minister of customs; protection against Australia being more important than access to Australian markets, New Zealand manufacturers were loath to take Australia off the general tariff. It is interesting to note that no use was made of the intermediate tariffs that had been incorporated into the 1921 act.

Two months after the Australian agreement was ratified, the South Africa treaty was reinstated with a higher duty on tobacco and with wine raised to the same rate as in the Australian agreement. The South Africa treaty seems to have been more a matter of sentiment than anything else, as the trade between the two countries was hardly sufficient to warrant special attention.

No further action was taken until 1932, when, just prior to the Ottawa Conference, a trade agreement was concluded with Canada. In 1930 Canada had been placed on the general tariff (slight preference being allowed on a few items, notably automobiles) in retaliation for the action of Canada in removing a special preference on New Zealand

butter that had been in existence since 1925.²⁷ The Canadian trade agreement gave New Zealand better duties on butter, cheese, and meat and free entry for some relatively unimportant items. In return New Zealand gave Canada special treatment on automobiles if three-fourths of Canadian manufacture, British preferential if one-half Canadian, but no advantage if less than one-half Canadian. Protection for New Zealand was maintained on salmon, boots and shoes, electrical goods, and agricultural instruments, although slight concessions from the general tariff were given. Preference was granted Canadian timber, secured by raising the general rate 2s. per 100 feet. British preferential rates were extended on all items not specifically enumerated.

On December 5, 1933, a trade agreement was negotiated with Belgium. Each nation accorded the other most-favored-nation treatment (excluding British countries); New Zealand reduced the duty on matches, carpets, glassware, sensitized surfaces, and firearms; and Belgium gave lower tariff rates on cheese and apples and granted free entry to hides, wool, tallow, and phormium fiber. Two months later New Zealand extended the Belgium rates to Argentina, Austria, Brazil, China, Czechoslovakia, Egypt, Finland, Germany, Hungary, Italy, Japan, Norway, and Spain; to Sweden in June, 1935; and to Greece in October, 1936. In most of these cases the extension of rates resulted from the application of most-favored-nation agreements which were contained in treaties negotiated by Great Britain, to which New Zealand became a party as a result of explicit or implicit agreement. In some cases the most-favored-nation clause was the result of direct negotiation between New Zealand and the foreign government, although in these, as in the other cases, the amount of trade that might be involved is extremely small.²⁸

With the advent of the Labor government in 1936 considerable activity took place in the field of reciprocal trade agreements. A major plank in the party's platform was the negotiation of such treaties, it being believed that such action would give stability to New Zealand's foreign trade and thus avoid the reoccurring cycles of prosperity and depression. In fact, the minister of customs stated that he would like to see New Zealand imports and exports balanced for

²⁷After completing a trade agreement with Australia in 1925, Canada extended to New Zealand the special terms on butter—presumably in recognition of the fact that Empire preference was allowed on Canadian goods by New Zealand.

²⁸New Zealand Official Year Book, 1935, p. 241.

every country except the United Kingdom.²⁹ Pursuing this policy, he brought about a revision of the trade agreement with Belgium in September, 1936, reductions being granted on a number of additional items, presumably because exports to Belgium had become considerably greater than imports from that country. Negotiations were opened with Great Britain, Germany, Switzerland, and the Netherlands.

In October, 1937, a trade agreement was concluded with Germany whereby the latter agreed to spend in New Zealand all credits arising from her exports to that country. Twenty-five per cent of the first £400,000 was to be spent on butter, and 5 per cent on apples; 50 per cent of credits in excess of this amount was to be used for the purchase of butter, and 25 per cent on apples, with a limit in the latter instance of £60,000 in any one year. In return New Zealand reduced the duty or exempted from the surtax a comprehensive list of items available from Germany. These reductions were immediately generalized to those countries entitled to most-favored-nation treatment.

A trade agreement was signed with Switzerland early in 1938 in which New Zealand extended the most-favored-nation treatment and Switzerland agreed to allow New Zealand a quota of 1,500 metric tons of apples and pears.³⁰ A few months later a treaty was signed with the Netherlands, but any further negotiations were interrupted by the rapid decline of sterling assets and the necessity of import licenses and exchange control.

The trend of the Labor government trade policy can best be seen in the negotiations carried on with Great Britain. New Zealand offered a market for United Kingdom goods equal in value to the latter's imports from New Zealand, less shipping charges, invisible items, debt service, and an allowance for the reduction of New Zealand loans in the United Kingdom. In certain cases United Kingdom manufacturers were to be given preference in installing and operating plants in New Zealand for goods at present imported, and in no case would the expansion of New Zealand industry be allowed to reduce the total imports from Great Britain. In return, New Zealand asked for a regulated expanding market in the United Kingdom for agricultural goods. According to Sutch, the failure of Great Britain to accept this program restricted the progress made in the planning of New Zealand industry by the Labor government.³¹

²⁹Neale, "Recent Trade Policy in New Zealand," *op. cit.*, p. 83.

³⁰Commerce Reports, June 18, 1938, p. 552.

³¹Op. cit., p. 44.

The over-all effect of tariff changes, trade agreements, and other factors is shown in the analysis of imports by country of origin presented in Table 30 and Figure 6. As far as the United Kingdom is concerned, the pronounced drop in 1924 and the sharp increase in 1931 are associated with her resumption and dropping of the gold standard, these effects outweighing the slight increases in 1927 and 1930 caused by the increases in British preference. The Ottawa agreement between New Zealand and Great Britain seems to have had little or no effect on the source of New Zealand imports.

The sharp increases registered for Australia in 1924 and 1925 are caused by the heavy wheat imports in these years. The decline after 1927 is in large part explainable by the stabilization of wheat production following the introduction of sliding-scale duties in that year. The effect of placing Canada on the general tariff can be seen in the years 1931 and 1932, although in part the decrease is due to the relative appreciation of the latter's currency. Similarly, the decline in the percentage of imports coming from the United States after 1929 is due both to the restrictive effect of the 1930 tariff on automobiles and the appreciation of the dollar. Australia rather than Great Britain seems to have benefited by the changes.

TABLE 30*

NEW ZEALAND IMPORTS BY COUNTRY OF ORIGIN (ANNUAL DATA)
(Per Cent of Total Imports, Excluding Specie)

Date	United Kingdom	Australia	Canada	Other Empire	United States	Other Foreign
1920	46.4	14.0	4.0	6.8	19.1	9.6
1921	48.5	12.7	4.0	7.3	19.0	8.4
1922	52.3	9.4	4.4	8.2	15.4	10.4
1923	51.9	8.4	6.8	6.3	16.0	10.5
1924	47.8	11.6	8.1	6.3	16.0	10.1
1925	48.8	10.0	7.5	6.7	16.9	10.1
1926	45.8	9.3	6.9	6.4	20.1	11.7
1927	47.9	8.6	6.1	5.9	18.0	12.4
1928	47.4	7.8	7.3	6.2	18.3	13.1
1929	46.2	6.7	9.8	5.1	19.1	13.1
1930	47.6	6.8	9.0	5.1	17.8	13.8
1931	50.2	7.8	5.1	6.5	16.0	14.4
1932	51.0	9.6	4.5	6.1	14.5	14.3
1933	51.3	10.1	5.0	7.2	11.5	15.0
1934	50.4	10.3	6.7	6.4	12.0	14.2
1935	50.4	10.9	6.6	5.3	12.5	14.2
1936	49.4	11.2	7.5	4.7	12.7	14.6
1937	49.6	11.7	8.1	4.2	12.4	14.0
1938	47.9	12.9	8.8	4.0	12.4	14.0
1939	46.8	12.8	8.9	5.7	11.4	14.4

*Source: New Zealand Official Year Books.

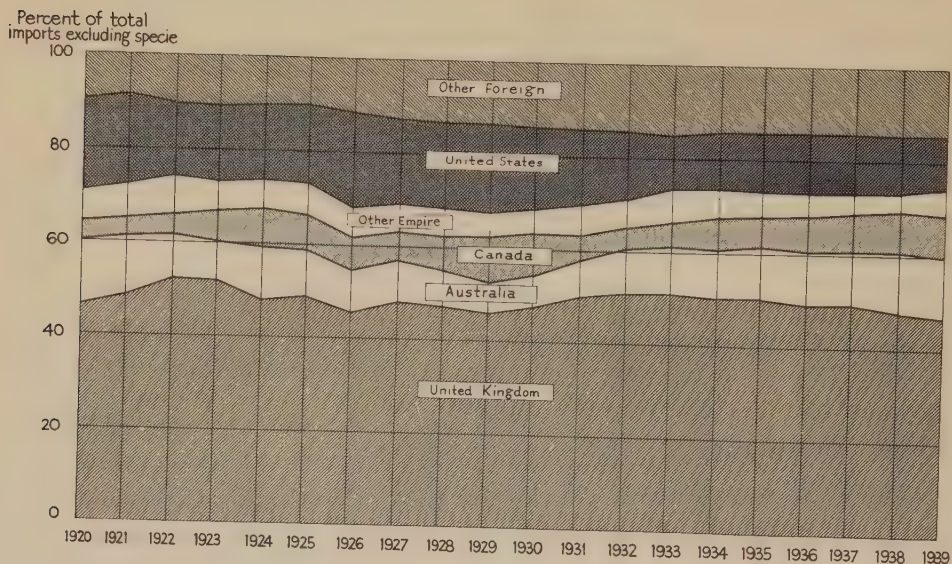


Fig. 6 - New Zealand imports (specie excluded) by country of origin (from Table 30)

Of particular interest is the relative increase in the imports from "Other Foreign" countries and the declining tendency in imports from "Other Empire." Since this movement has been in progress throughout the entire period, it cannot be attributed to the reciprocal trade agreement program of 1936-38 but is more likely due to the increasing prosperity of the New Zealand people and their consequent demand for a greater variety of imports. In any event, the effect of British preference again seems negligible. (Put in other terms, the demand for foreign goods has been quite inelastic, and the imposition of discriminatory duties has resulted rather in increased revenue than in shifts in the source of imports.)

CHAPTER V

INTERNATIONAL TRADE

Merchandise Exports

The principal exports of New Zealand are wool, butter, frozen meats, cheese, and skins—all products derived from pastoral production. In recent years gold has become of increasing importance as an export item, and there has been a small but continuous export trade in timber, apples, and coal. Agronomic items play a very small part in New Zealand exports, wheat, for example, being imported in more years than it is exported. Table 31 clearly shows the dominance of the five major pastoral products in New Zealand's exports.

In the early history of New Zealand wool and gold were the most important export items, wool increasing in importance and gold decreasing. Since 1882, when the process of freezing meat and shipping it in refrigerated vessels was developed commercially, there has been an expanding export of beef, mutton, lamb, and veal. Butter, which has been an export item from earliest times, came into particular prominence from 1922 onward. Shipments rose from a level of 400,000 cwt. in the years preceding 1921 to over 1,200,000 in 1923, an expansion which reflects an increase in butter prices from an average of £5 per cwt. to over £8. Gold has regained some of its previous importance as an export item since 1931 on account of the increase in its price in terms of New Zealand currency.

The value of total exports from New Zealand undergoes considerable fluctuation from year to year, reflecting in the main price changes in the five most important items. Table 32 and Figure 7 show the close relation between export prices and total value of exports. Some variation is caused by the change in stocks accumulated in New Zealand, as the published figures for wool inventories indicate (Table 33). Only minor variations are caused by year-to-year climatic changes, as the figures for average weight per fleece and average butterfat production per cow in Table 34 show.¹

In addition to the variation in annual figures, there is a marked seasonal fluctuation in exports, the peak periods coming in the summer months of December and January. Some attempt to iron out

¹The official index for pastoral production does not separate the effect of climatic and economic influences. For example, a fall in the price of wool relative to the price of lamb and mutton causes a decline in the number of sheep on farms, which in turn causes a decline in wool production in subsequent years.

TABLE 31*
 PRINCIPAL NEW ZEALAND EXPORT ITEMS
 (£N.Z.000)

Year Ending June 30	Wool	Butter	Frozen Meats	Cheese	Hides and Skins	Gold	Other Items
1920	13,206	2,257	10,028	6,930	4,479	1,085	7,868
1921	8,638	8,447	13,974	8,376	2,947	837	6,682
1922	11,052	8,056	10,334	6,027	1,767	547	5,832
1923	11,359	11,491	8,987	6,434	2,132	601	5,217
1924	14,640	9,786	8,840	6,460	2,622	684	4,828
1925	18,088	11,706	10,705	6,074	3,970	478	5,784
1926	12,030	8,959	9,091	6,074	3,164	491	5,695
1927	12,884	9,762	8,393	5,331	3,291	522	5,267
1928	16,549	11,316	10,107	6,361	3,645	518	5,689
1929	15,923	12,745	10,374	6,890	3,574	495	5,287
1930	8,156	13,023	9,972	6,361	2,661	545	5,505
1931	6,195	9,918	9,102	5,227	1,496	520	3,818
1932	5,553	10,128	8,461	4,570	1,176	797	3,375
1933	6,703	10,898	8,513	4,808	1,190	1,199	3,558
1934	13,287	11,830	10,854	4,732	2,434	1,332	4,047
1935	6,328	10,625	12,962	4,524	1,982	1,385	4,612
1936	12,762	14,790	11,918	4,509	2,928	1,485	4,797
1937	18,771	16,434	13,146	5,282	3,846	1,379	5,281
1938	12,326	18,285	15,446	6,069	2,925	1,368	4,953
1939	12,899	15,834	14,369	5,706	2,391	1,506	4,611

*Source: New Zealand Official Year Books.

TABLE 32*
 EXPORT PRICES AND TOTAL VALUE OF EXPORTS

Year Ending June 30	Index of Export Prices† (1909-13 = 1000)	Value of Exports (£N.Z.000)
1920	1806	45,853
1921	1713	49,881
1922	1363	43,615
1923	1610	46,221
1924	1788	47,860
1925	1893	56,625
1926	1648	45,504
1927	1514	45,457
1928	1647	54,185
1929	1668	55,288
1930	1397	46,223
1931	1052	36,276
1932	934	34,060
1933	861	36,869
1934	1089	48,516
1935	1046	42,418
1936	1205	53,189
1937	1397	64,139
1938	1386	61,372
1939	1319	57,343

*Source: New Zealand Official Year Books.

†Based on calendar years through 1925, and on June years from 1926 on.

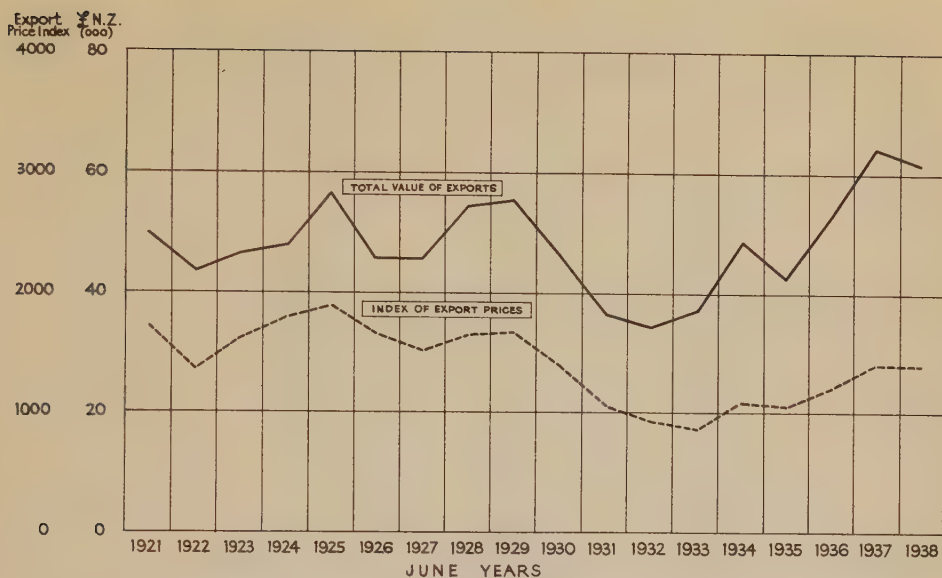


Fig.7 – Relation of total value of exports and export prices (FROM TABLE 32)

the seasonal movement has been made by the New Zealand Meat-Producers' Board and the New Zealand Dairy Board, organized by the government in 1921 and 1923, respectively, to promote "orderly" marketing. These boards, composed of members elected by the industry and a smaller

TABLE 33*
ESTIMATED WOOL STOCKS IN NEW ZEALAND

Year at June 30	Reported Inventories of Wool Held in New Zealand Lb.000, Greasy Basis
1927	16,800
1928	17,900
1929	25,700
1930	79,200
1931	92,900
1932	112,600
1933	76,600
1934	47,500
1935	84,600
1936	41,200
1937	29,400
1938	43,300
1939	36,600

*Source: New Zealand Official Year Books. No data on stocks were collected prior to 1927.

TABLE 34*
EFFECTS OF CLIMATE ON NEW ZEALAND PASTORAL PRODUCTION

Year Ending June 30	Butterfat Production		Wool Production	
	Pounds per Cow	Percentage Change from Previous Year	Pounds per Fleece†	Percentage Change from Previous Year†
1919-20	152.04	....	7.25	....
1920-21	154.25	1.45	7.48	3.17
1921-22	174.97	13.43	7.39	-1.20
1922-23	180.62	3.23	7.72	4.46
1923-24	174.10	- 3.61	7.57	-1.94
1924-25	182.09	4.59	7.98	5.42
1925-26	179.40	- 1.48	7.38	-7.52
1926-27	198.50	5.07	7.65	3.66
1927-28	195.38	- 1.57	7.84	2.48
1928-29	210.84	7.91	8.03	2.42
1929-30	218.05	3.42	7.66	-4.61
1930-31	201.05	- 7.80	....	....
1931-32	199.65	- .70	....	....
1932-33	215.10	7.74	....	....
1933-34	220.80	2.65	....	....
1934-35	210.00	- 4.89	....	....
1935-36	217.93	3.78	....	....
1936-37	228.56	4.88	....	....
1937-38	224.19	- 1.47	....	....
1938-39	203.21	- 9.36	....	....

*Source: New Zealand Official Year Books.

†Not reported after 1930.

TABLE 35*
INDEX OF SEASONAL VARIATION IN VALUE OF NEW ZEALAND EXPORTS
(Average for Each Year = 100)

Month	1926	1927	1928	1929	Average 1926-29	1936	1937	1938	1939	Average 1936-39
Jan. ...	135.8	127.5	149.7	133.4	136.6	124.3	137.4	167.1	176.0	153.7
Feb. ...	116.4	137.3	115.5	132.1	125.3	116.6	132.3	171.5	166.6	146.7
Mar. ...	161.3	133.5	150.5	165.1	152.6	152.2	167.3	158.1	156.8	161.1
Apr. ...	133.5	148.6	94.1	106.5	120.7	136.4	133.0	140.4	114.7	131.1
May ...	110.1	104.4	129.1	141.1	121.2	112.4	136.4	82.7	84.3	103.9
June ...	91.4	96.6	123.5	110.0	105.4	111.8	90.5	71.7	86.3	90.1
July ...	99.6	84.1	80.6	68.8	83.3	96.3	70.1	72.5	59.1	74.5
Aug. ...	64.2	80.2	75.3	74.2	73.5	56.2	51.2	42.0	56.3	51.4
Sept. ...	81.1	70.4	66.9	62.3	70.2	67.0	47.3	55.9	61.2	57.8
Oct. ...	50.2	55.7	45.2	76.7	56.9	46.7	52.8	60.9	57.5	54.5
Nov. ...	74.0	78.4	91.0	65.1	77.1	71.5	62.4	71.9	69.8	68.9
Dec. ...	82.4	83.2	78.6	64.7	77.2	99.6	119.3	95.3	115.4	107.4

*Calculated from data in New Zealand Monthly Abstract of Statistics.

number appointed by the government, have had a great deal of control over the marketing of their respective products. Since 1936 complete control over the marketing of butter and cheese has been exercised by the Primary Products Marketing Department, which purchases these

products at fixed prices when delivered for export. The fluctuation from year to year in the seasonal variation for exports is shown in Table 35 for the periods 1926-29 and 1936-39. The increased range of fluctuation indicates that the influence of the control boards in smoothing exports has been negligible. It should be pointed out that there is no diseconomy in the wide seasonal variation in the shipment of New Zealand exports. As an alternative to this it would be necessary to construct cold-storage warehouses in New Zealand, whereas both the high interest rates and the high wage rates indicate that the storage function can be performed at a lower cost in England. The tonnage of imports being greater than the tonnage of exports at all seasons, no appreciable economy in shipping facilities would be possible.²

Merchandise Imports

In contrast with the export situation, merchandise imports into New Zealand cover a wide range of goods, of which no one item, except motorcars, represents more than 1 or 2 per cent of the total value imported. From the analysis of imports by broad classifications presented in Table 36, the dominance of finished and semifinished goods is apparent, reflecting the minor role of "secondary" or industrial production of the economy.

There has been a considerable year-to-year variation in the value of imports, although the changes are not so sharp as occur in exports. The influence of the 1930 depression can be clearly seen, and it is interesting to note that the impact was distributed fairly equally over all items. Although there is some indication that there was a greater change in the more durable goods such as machinery and motorcars, the difference is not so marked as might have been expected. The relatively greater increase in these items in the period 1935 onward is evidence that the situation was marked by a long-run trend toward these goods.

Even more interesting is the marked stability, since 1923, in the price level of imported goods. In part this is due to the fact that imports consist mainly of manufactured goods, which change in price more slowly and to a less degree than do agricultural goods, but more largely it reflects the cumulative effects of changes in exchange rates, tariffs, and wholesale and retail margins. The

²In normal years the tonnage of imports is twice that of exports. In addition, the capacity of the boats cleared is three times the tonnage of exports. The peak month of export volume is well under twice the average monthly volume.

TABLE 36*
PRINCIPAL IMPORTS INTO NEW ZEALAND
(£N.Z.000)

Calendar Year	Foodstuffs of Vegetable Origin	Apparel	Textiles	Machinery	Manufacturing Metals	Other	Motorcars and Parts	Oils, Fats, and Waxes	Others	Total Imports
1920	5,321	6,592	9,956	2,687	6,559	5,257	3,142	22,082	61,596	
1921	3,474	3,494	5,311	3,735	6,294	2,227	2,949	15,458	42,942	
1922	2,914	3,792	4,882	2,769	4,249	1,527	2,324	12,556	35,013	
1923	3,249	4,899	6,176	3,008	4,985	3,404	2,404	15,163	43,378	
1924	4,847	4,405	5,611	3,967	5,456	4,567	3,263	16,412	48,528	
1925	4,247	4,850	6,239	4,224	5,603	5,882	3,450	17,661	52,456	
1926	4,323	4,615	4,356	4,224	5,192	5,193	3,963	17,024	49,890	
1927	3,510	4,364	5,159	4,158	5,004	3,545	3,174	15,869	44,783	
1928	3,470	4,661	5,449	4,131	4,648	3,984	2,834	15,667	44,844	
1929	2,932	4,805	5,792	4,305	5,195	5,711	3,322	16,672	48,734	
1930†	2,875	4,527	5,265	4,406	4,807	3,649	3,515	15,296	44,340	
1931†	2,370	2,577	3,276	2,731	2,412	1,335	2,269	9,837	26,507	
1932†	2,640	2,216	3,582	1,938	2,010	1,387	2,174	8,694	24,641	
1933†	2,237	2,215	3,827	2,027	2,305	1,426	1,908	9,635	25,580	
1934	2,377	2,315	4,537	2,620	3,273	3,292	2,003	10,925	31,340	
1935	2,731	2,365	4,711	3,532	3,972	4,165	2,123	12,718	36,317	
1936	2,843	2,711	5,553	5,279	4,956	5,499	2,181	14,637	44,259	
1937	3,692	3,825	6,694	7,512	6,626	7,032	3,171	17,609	56,161	
1938	4,000	3,203	5,115	8,039	7,067	6,674	3,334	17,990	55,422	
1939	3,505	2,186	5,047	6,651	6,490	5,349	3,549	16,610	49,387	

*Source: New Zealand Official Year Books.

†During 1930 and 1931 detailed imports were valued in terms of sterling, converted at mint pars. In 1932 and 1933 the values were again recorded in sterling but were converted to sterling at bank rates of exchange. For use in this table the reported figures were converted to New Zealand currency values at the ratio of total recorded values to total imports valued in £N.Z. The totals shown differ slightly from the official figures.

index of wholesale prices for imported commodities is shown in Table 37.

As a result of the frequent changes in export prices, and the relative stability of wholesale prices of imported items, the terms of trade for New Zealand are subject to considerable variation. A crude estimate of the terms of trade, obtained by dividing the export price index (for the calendar year) by the index of import prices, is shown in Table 38.

Shipping and Freight Rates

All freight to and from New Zealand and London is carried in ships belonging to the New Zealand Shipping Conference—that is, in the ships of the New Zealand Shipping Company; the Federal Steam Navigation Company; the Shaw, Savill and Albion Company; the Common-

TABLE 37*
PRICE INDICES FOR IMPORTED GOODS
(1926-30 = 1,000)

Year	Wholesale Price Index for Imported Goods†	Index of Import Prices†
1920	1791‡	...
1921	1589‡	...
1922	1320	...
1923	1179	...
1924	1161	...
1925	1145	...
1926	1072	110
1927	1008	103
1928	985	99
1929	975	95
1930	959	92
1931	938	85
1932	933	83
1933	986	86
1934	977	84
1935	980	83
1936	979	83
1937	1062	87
1938	1072	86
1939	1084	87

*Source: New Zealand Official Year Books.

†The New Zealand Official Year Book 1939 (Wellington: E. V. Paul, Government Printer, 1938), pp. 689-93. It is pointed out that the wholesale price index of imported items (values in £N.Z. after duties, etc.) is not the same as the index of import prices (values in £N.Z. at port of shipment) partly because of tariffs and marketing expenses, and partly because the wholesale index consists of 112 items in comparison with over 200 in the import price index. Since, however, New Zealand consumers buy at prices more closely related to wholesale prices in New Zealand than to wholesale prices in the country of shipment, the former index is a better guide to buying behavior.

‡Adjusted from old series which contained fewer items.

TABLE 38

ESTIMATED "TERMS OF TRADE" FOR NEW ZEALAND

Year	Index (1926 = 100)
1926	100
1927	105
1928	121
1929	122
1930	99
1931	83
1932	77
1933	74
1934	95
1935	96
1936	108
1937	120
1938	110
1939	109

wealth and Dominion Line; and the Blue Star Line. In 1935, Conference ships carried most of the freight from New York to New Zealand, the balance of shipments to and from the United States being divided between the Union Steamship Company of New Zealand, the British Ellerman and Bucknall Line, the Norddeutscher Lloyd, the Andrew Wier Company, the Japanese Line, and the United States Matson Line. Shipments to and from Canada are carried mainly by the Canadian National Line and by the Canadian Australasian Line (in which the Union Steamship Company of New Zealand has a half-interest). The Union Steamship Company plays a large part in the Australian-New Zealand shipping, although the traffic is shared with other shipping companies, including Australian concerns.³

Of these companies, the only one with headquarters in New Zealand is the Union Steamship Company of New Zealand. Originally, the company was entirely a New Zealand enterprise, but in 1917 the P. and O. Company bought most of the common stock. Nevertheless, preference shares valued at well over £1,000,000 remained in the hands of New Zealanders and Australians, and no change was made in the management of the company.⁴ In 1901 the Union Company bought a share of the Canadian-Australian Line and shortly afterward became

³The information in this paragraph is taken from Imperial Shipping Committee, Report on Rates of Freight in the Trade from the United Kingdom to New Zealand (London: H.M. Stationery Office, 1935), pp. 9-11.

⁴History of the Union Steamship Company of New Zealand, Ltd. (issued by the company in commemoration of the centenary of British settlement in New Zealand, 1940), p. 43.

sole owners, this transaction being significant because the line had subsidies from the Australian and Canadian governments for the carriage of mail. Since 1911, when the Australian subsidy was replaced by a New Zealand subsidy, the line, under the name Canadian Australasian Line, has carried all the New Zealand mail to and from Canada and England (excluding air mail, which is sent via Australia).⁵ In 1931 a half-interest in the Canadian Australasian Line was sold to the Canadian Pacific Railways, and headquarters were shifted to Vancouver.⁶

The major statistics on New Zealand shipping are the official figures on the registry of overseas vessels calling at New Zealand ports. These figures reflect only in a general way the tonnage of freight handled, as many of the vessels stop for fuel and stores only. Furthermore, many of the ships of the Union Company are registered in the United Kingdom rather than in New Zealand. The most striking feature in the figures presented in Table 39 is the increase in ships of foreign registry since 1929. American ships represent the largest

TABLE 39*

REGISTRY OF OVERSEAS VESSELS CALLING AT NEW ZEALAND
(Net Tonnage, in Thousands)

Year	United Kingdom	Other British	Foreign Countries	Total
1920	1,478	403	181	2,062
1921	1,386	439	115	1,940
1922	1,370	360	53	1,783
1923	1,544	498	70	2,112
1924	1,394	691	128	2,213
1925	1,297	675	151	2,123
1926	1,377	706	179	2,262
1927	1,386	620	190	2,196
1928	1,445	564	172	2,181
1929	1,565	588	190	2,343
1930	1,473	548	277	2,298
1931	1,388	454	314	2,156
1932	1,354	496	506	2,356
1933	1,310	636	582	2,528
1934	1,410	681	542	2,633
1935	1,307	701	562	2,570
1936	1,480	738	671	2,890
1937	1,453	814	696	2,963
1938	1,558	825	702	3,085
1939	2,342	...+	632	2,975

*Source: New Zealand Official Year Books.

+Included with United Kingdom.

⁵Ibid., p. 20.

⁶Ibid., p. 31.

tonnage of ships of foreign registry, followed, in order, by Norwegian and Japanese ships.

In addition to vessels engaged in overseas trade, there are a number of ships registered in New Zealand that are devoted to coast-wise shipping. Since there is little shipbuilding in New Zealand, the figures of gross tonnage registered are of some interest in indicating ships imported, although the yearly fluctuations represent the difference between ships bought and ships junked rather than new purchases. The relevant statistics are shown in Table 40, along with figures showing the new acquisitions of the Union Steamship Company of New Zealand, which operates boats in both the coastal and the overseas trade. (As pointed out before, some of the latter's ships are registered in the United Kingdom.)

Specific information on freight rates between New Zealand and different ports is difficult to obtain, but, in general, the freight costs on imports amount to approximately 10 per cent of the value of the goods. In fact, the value of imports reported in the official figures represents the price at the port of shipment plus a uniform 10 per cent for freight and other shipping charges. In the years of

TABLE 40

GROSS TONNAGE OF NEW ZEALAND SHIPS

Year	Vessels Registered in New Zealand* (December 31)	Change from Previous Year	New Tonnage of Union Steam- ship Company†
1920	139,945	.....	28,752
1921	147,832	7,887	6,684
1922	150,589	2,757	7,133
1923	164,882	14,293	.....
1924	190,144	25,262	26,386‡
1925	207,764	17,620	30,222‡
1926	202,354	- 5,410	4,830
1927	204,760	2,406	.....
1928	194,304	-10,456	454
1929	211,448	17,144	5,125
1930	201,650	- 9,798	25,866
1931	199,949	- 1,701	6,152
1932	214,752	14,803	.....
1933	205,729	- 9,023	.....
1934	188,438	-17,291	2,212
1935	179,747	- 8,691	1,044
1936	188,428	8,681	20,036
1937	186,525	- 1,903	5,861
1938	177,646	- 8,879	14,503
1939	192,286	14,640	6,434

*Source: New Zealand Official Year Books.

†Source: History of the Union Steamship Company of New Zealand.

‡Mainly ships engaged in the Vancouver service.

TABLE 41*

FREIGHT RATES ON FROZEN MEATS, NEW ZEALAND TO LONDON
(Pence, Sterling, per Lb.)

For Year Ending June 30	Mutton	Lamb	Pork	Beef	Butter (per 56-Lb. Box)
1921	1.666	1.790	1.666	1.375	.....
1922	1.666	1.790	1.666	1.375	.....
1923	1.250	1.500	1.000	1.125	.....
1924	1.125	1.375	1.000	1.000	4s.6d.
1925	1.094	1.281	0.875	0.875	.....
1926	1.01	1.185	0.809	0.809	.....
1927	1.01	1.185	0.809	0.809	.....
1928	1.01	1.185	0.809	0.809	.....
1929	1.01	1.185	0.809	0.809	.....
1930	0.957	1.121	0.766	0.766	3s.4 3/4d.
1931	0.929	1.089	0.743	0.743	3s.4 3/4d.
1932	0.929	1.089	0.743	0.743	3s.4 3/4d.
1933	0.929	1.089	0.743	0.743	3s.2d.
1934	0.864	1.012	0.691	0.691	3s.2d.
1935	0.864	1.012	0.691	0.691	3s.2d.
1936	0.793	0.929	0.645	0.645	2s.9 1/2d.
1937	0.793	0.929	0.645	0.645	2s.11 1/4d.
1938	0.793	0.929	0.645	0.645	2s.11 1/4d.
1939	0.793	0.929	0.645	0.645	2s.11 1/4d.

*Source: Imperial Shipping Conference, op. cit., p. 32, and New Zealand Official Year Books.

high import prices this represents an overstatement of the true costs, and in years of low prices an understatement. Furthermore, shifts in the direction of trade from the United Kingdom to Australia, Canada, or the United States tend to reduce the freight costs on imports. Over-all, there has apparently been a slight downward trend in absolute freight rates since 1923, although no data are available for recent years.⁷

Partial information on export freight rates is available in the contracts made by the New Zealand Meat-Producers' Board. Rates ruling since 1921 for lamb, mutton, beef, and pork are shown in Table 41—the meats listed representing the bulk of the frozen meat exports. In general, it may be said that freight rates on exports have shown a steady decline since 1920, reflecting the relatively small out-bound tonnage and the bargaining power of the export boards, whereas freight rates on imports have remained almost constant throughout the entire period.⁸ This statement refers to freight

⁷Imperial Shipping Committee, op. cit., p. 15.

⁸See also Albert E. Sanderson, Control of Ocean Freight Rates in Foreign Trade ("U.S. Department of Commerce Trade Promotion Series," No. 185 [Washington: Government Printing Office, 1938]), pp. 117-18.

rates in terms of sterling; in terms of New Zealand currency there has been an increase in import rates since 1930, and in export rates since 1934.

CHAPTER VI

BALANCE OF PAYMENTS

As is apparent from the discussion in the preceding chapters, it is possible to estimate rather closely most of the items entering into New Zealand's balance of payments. Since the major omission is the investment of private capital in New Zealand by outsiders, and vice versa, this will be treated as the residual or "balancing" item. Since there are, of course, a number of sources of error in the estimates of the various items in the balance of payments, notably tourists' expenditures and payments for freight and other services, only marked changes in the net import or export of private capital can be indicated.

Available records of New Zealand's balance of payments are inadequate. An estimate for each year since 1914 has been worked out by the New Zealand Census and Statistics Office, but the major series, covering the years ending March 31, 1914, to March 31, 1933 (developed for the report by the Treasury to the Government Monetary Committee in 1934)¹ gives no details as to the method of compilation and shows only the net balance. The Year Book for 1935 gives a partial breakdown of the balances by groups of items but again gives no details concerning procedure.² Detailed statements of the balance of payments for the March years since 1927, prepared by the New Zealand Census and Statistics Office and published both in the League of Nations series on Balance of Payments and in the New Zealand Official Year Books,³ serve as a starting-point for the reconstruction of the detailed receipts and payments for the March years (years ending March 31) 1920 to date. Further adjustments of the reported figures have been made wherever possible.

¹A. D. Park and B. C. Ashwin, "Statement Submitted by the Treasury on Banking and Currency in New Zealand," in Monetary Committee, 1934, Minutes of Evidence, Appendix to the Journals of the House of Representatives of New Zealand (Wellington: Government Printer, 1935), Vol. I, Paper B-3, pp. 1-14.

²New Zealand Official Year Book, 1935 (Wellington: Government Printer, 1934), p. 191.

³Crude estimates for the calendar years 1924 through 1926 are included in the League of Nations series. These estimates, though broken down by items, are of little use, since they are based on calendar years.

Merchandise Balance

Table 42 shows the estimated landed value of imports (not the recorded value, which represents the price in the country of shipment plus a flat 10 per cent to cover freight and other costs) and the value of exports f.o.b. port of shipment. A correction is made for the value of ships imported and exported, which are omitted from the published figures.⁴ Imports and exports of coin and bullion are included with other merchandise, as ordinarily they move in a commercial rather than a banking sense.⁵ Table 43 compares the reported exports of coin and bullion (gold and silver) with the reported production of the metals, plus imports, plus the changes in bank holdings of coin and bullion. This table, though necessarily incomplete, indicates that no adjustments of the reported figures for these items need be made.

Balance of Interest and Dividends

The reported figures on interest and dividends payable and receivable on foreign account are mainly concerned with governmental receipts and disbursements. No allowance is made for interest or dividends on New Zealand funds invested abroad, and a very crude estimate of payments to private investors abroad is arrived at by allowing from 4 to 5 per cent on a correspondingly crude estimate that there are approximately £20,000,000 of private funds invested in New Zealand.⁶

In Table 44 a rough estimate has been made of the average funds held in London by the New Zealand government for the years 1919-20 to 1926-27, and interest income calculated at the approximate rate of return indicated in the source material. For a more accurate estimate, an over-all correction should be made for the interest on private capital invested abroad as indicated by the residuals of the balances here being calculated.⁷ The omission of such interest income tends to understate the exodus of private capital and to overstate the influx of such funds.⁸

⁴Cf. Roland Wilson, "The Import of Capital" (unpublished dissertation, Department of Economics, University of Chicago, June, 1930), p. 447.

⁵In 1932 approximately £1,500,000 face value of gold coin was transferred abroad by the banks to secure exchange (Monetary Committee, op. cit., p. 141).

⁶League of Nations, Balance of Payments, 1938 (Lausanne: Reunies S.A., 1938), p. 155.

⁷See below, p. 91.

⁸It is not necessary to estimate separately the income on funds held abroad by the trading banks, as such income is included in the estimated changes in bank assets held overseas.

TABLE 42
MERCHANDISE BALANCE OF PAYMENTS
(£Stg.000)

Year Ending March 31	Exports		Imports			Balance
	As Reported*	Ships to Australia†	As Reported‡	Ships from Britain§	Ships from Australia†	
1920-21 ...	48,199	2	70,836	...	7	-22,642
1921-22 ...	43,802	..	38,652	...	9	5,141
1922-23 ...	45,549	..	39,194	22	3	6,330
1923-24 ...	51,653	..	47,066	30	...	4,577
1924-25 ...	54,771	..	52,462	61	23	2,225
1925-26 ...	48,698	10	55,677	171	60	- 7,200
1926-27 ...	45,682	..	49,398	30	4	- 3,750
1927-28 ...	54,962	..	45,428	7	19	9,508
1928-29 ...	57,154	7	46,131	18	111	10,901
1929-30 ...	48,567	..	50,270	213	26	- 1,942
1930-31 ...	37,199	..	38,356	203	20	- 1,380
1931-32 ...	31,577	..	22,772	275	5	8,528
1932-33 ...	34,453	..	22,672	18	10	11,753
1933-34 ...	38,207	..	22,045	...	55	16,107
1934-35 ...	38,924	..	27,288	44	14	11,578
1935-36 ...	40,437	..	30,241	14	3	10,179
1936-37 ...	48,392	..	38,310	426	...	9,656
1937-38 ...	52,216	..	46,874	59	...	5,283
1938-39 ...	46,449	..	43,671	310	...	2,468

*Source: League of Nations, Balance of Payments, and New Zealand Official

Year Books.

†Source: Report on Trade and Shipping in the Dominion of Australia.

‡Source: League of Nations, Balance of Payments, and New Zealand Official
Year Books. Include adjustments to show estimated true landed value. Reported
figure of imports multiplied by the following percentages:

1920-21	105.0
1921-22	107.0
1922-23	106.0
1923-24	106.0
1924-25	105.3
1925-26	105.0
1926-27	102.5

Adjustments for years to 1923-24 based on Wilson, op. cit., p. 438; and for subsequent years on the information published in League of Nations, Balance of Payments.

§Source: Annual Statement of the Trade of the United Kingdom with Foreign
Countries and British Countries (London: H.M. Stationery Office, annually),
Vol. III.

The published statistics on life insurance companies give partial information on interest and dividends paid abroad. Any excess of income over expenditures should increase assets held in New Zealand unless transferred abroad in the form of dividends to stockholders. True, one of the life insurance companies doing business in New Zealand is a New Zealand-owned institution, so that dividends paid to its stockholders remain in the country. Although it is impossible to segregate the dividends paid by this company, the error involved is offset by the fact that dividends from accident and fire insurance,

TABLE 43*
COMPARISON OF ESTIMATED AND REPORTED EXPORT OF COIN AND BULLION
(£N.Z.000)

Year	Holding of Bullion (December) (1)	Change from Previous Year (Increase Shown as-) (2)	Market Value of Holding† (3)	Bank Holding of Coin (December) (4)	Change from Previous Year (Increase Shown as-) (5)	Coin and Bullion Imported (6)	Gold and Silver Mined (7)	Estimated Export (7) + (5) + (3) (8)	Recorded Export (9)
1920 ...	#	..	..	7,729#	288	45	528	861	1,008
1921 ...	#	..	..	7,661#	68	200	547	815	678
1922 ...	#	..	..	7,823#	- 162	245	575	658	596
1923 ...	#	..	..	7,901#	- 78	15	737	674	789
1924 ...	#	..	..	7,816#	85	....	607	692	727
1925 ...	#	..	..	7,723#	93	44	546	683	552
1926 ...	#	..	..	7,797#	- 74	81	539	546	574
1927 ...	#	..	..	7,875#	- 78	3	550	475	577
1928 ...	60	-60	-60	7,136	739	46	551	1,276	1,152
1929 ...	58	2	2	6,538	598	71	527	1,198	1,171
1930 ...	16	42	43	6,858	- 320	366	551	642	596
1931 ...	14	2	3	6,755	103	59	657	822	818
1932 ...	11	3	5	5,281	1,474	57	1,020	2,556	2,568
1933 ...	12	- 1	- 2	5,045	236	427	1,100	1,761	1,614
1934 ...	..	12	22	3,710	1,335	1,245	1,196	3,798	3,643
1935 ...	..	..	..	3,743	- 33	384	1,300	1,651	2,024
1936 ...	..	..	..	3,439	304	41	1,273	1,618	1,500
1937 ...	..	..	..	3,697	- 258	322	1,320	1,384	1,487
1938 ...	..	..	..	3,467	230	36	1,214	1,480	1,372
1939 ...	..	..	..	3,513	- 46	80	1,567	1,601	1,668
Total	..	..	..	....	....	....	....	25,191	25,044

*Source: New Zealand Official Year Books.

†Converted at ratio of average price of domestic bullion exported each year to the average price of bullion exported in 1928.

#Not shown separately.

BAverage for the year.

TABLE 44*

FUNDS HELD ABROAD BY THE NEW ZEALAND GOVERNMENT 1920-30
(£000)

Year at March 31	Funds Held Abroad	Change from Previous Year	Average Fund during Period	Interest on Average Fund (4%)
1919-20	14,773	.....	.....	...
1920-21	9,678	-5,095	12,225	489
1921-22	7,478	-2,200	8,578	343
1922-23	7,894	216	7,686	307
1923-24	6,312	-1,582	7,103	284
1924-25	6,312	.....	6,312	252
1925-26	6,477	165	6,394	256
1926-27	6,316	- 161	6,396	256
1927-28	8,840	2,524	7,675	307
1928-29	12,938	4,098	10,889	435
1929-30	6,262	-6,676	9,595	384

*Source: Appendix to the Journals of the House of Representatives of New Zealand, Vol. I, Paper B-10.

which is in part handled by foreign companies, are not included here.⁹ Allowance is made in Table 45 for the increase in New Zealand assets caused by increased capital investment on account of New Zealand business. A point of particular interest in the table is the high outflow in 1937 and 1938, which indicates an element of uncertainty such as is associated with a "flight of capital." Conversely, the small outflow in 1939 is a mark of confidence.

The adjusted estimate of interest and dividends received and paid on foreign accounts is shown in Table 46. Inasmuch as the reported estimates of dividends paid abroad are quite conservative, the figures developed from the insurance reports are simply added on. No effort has been made to adjust calendar years to fiscal years, as the correction figures are at best very rough estimates.

Balance of Freight and Other Services

Table 47 summarizes the reported figures on receipts and payments for various services. Inasmuch as imports have been valued at a figure representing their landed value and exports are shown at values f.o.b. point of departure, it is necessary to show national shipping receipts as an income item. Prior to 1931 no allowance for this item was included in the official estimates, as it was believed that foreign port expenses and dividends paid abroad roughly equaled the

⁹Statistics of the Life Insurance Department of the New Zealand Government, which does a very large business, are included with those of the private companies. Since this department, of course, pays no dividends, the net results of its operations are fully reflected in the change in total assets.

TABLE 45*

ESTIMATE OF EARNINGS TRANSFERRED ABROAD BY
LIFE AND INDUSTRIAL INSURANCE COMPANIES
(£000)

Year	New Zealand Assets of Life Insurance Companies December 31†	Change from Previous Year	Net Receipts Including Sale of Cap- ital Stock	Earnings Transferred Abroad (3) - (2)	Sterling Equivalent‡
	(1)	(2)	(3)	(4)	(5)
1920	17,515	764	1,158	394	394
1921	18,367	852	1,195	343	343
1922	19,112	745	1,134	389	389
1923	19,794	682	1,362	680	680
1924	20,768	974	1,301	327	327
1925	21,432	664	1,447	783	783
1926	22,300	868	1,567	699	699
1927	23,302	1,002	1,375	373	373
1928	24,045	743	1,407	664	664
1929	25,209	1,164	1,814	650	650
1930	33,794	8,585	1,877	-6,708 [§]	-6,708 [§]
1931	36,655	2,861	1,803	-1,058||	- 962||
1932	38,126	1,471	1,545	74	67
1933	39,817	1,691	1,621	- 70||	- 56
1934	42,162	2,345	2,006	- 339	- 271
1935	44,182	2,020	2,502	482	386
1936	47,061	2,879	2,902	23	18||
1937	49,074	2,013	3,175	1,162	930
1938	49,761	687	2,098	1,411	1,129
1939	52,823	3,062	3,214	152	122

*Source: New Zealand Official Year Books.

†Excluding New Zealand Government Life Insurance Department.

‡Converted at rates indicated in Table 18.

§New Zealand securities held in Australia transferred to New Zealand. This change is not reflected in statistics on domicile of debt, as interest had previously been payable in New Zealand (letter from G. W. Butcher, government statistician, New Zealand Census and Statistics Office, December 11, 1941).

^{||}Import of funds.

income from overseas (as contrasted with coastal) business.¹⁰ In view of subsequent investigations, it appears that this assumption was not correct, and consequently a flat sum of £700,000 per year is used for the years 1920-21 through 1927-28.¹¹

Balance of Payments Arising from Capital Transactions

The reported figures for capital items in the balance of payments give a complete account (except for changes in private investment) for the years 1936-37 on. Prior to this time no estimate of changes in bank holdings of foreign funds were included, and in

¹⁰League of Nations, Memorandum on International Trade and Balance of Payments 1927-1929 (Lausanne: Reunies S.A., 1931), p. 149.

¹¹Cf. the detailed estimates of the balance of payments for the years 1928-29 and 1929-30 in New Zealand Official Year Book, 1935, p. 192.

TABLE 46*
BALANCE OF INTEREST AND DIVIDEND PAYMENTS
(£Stg.000)

Year Ending March 31	Reported Interest Receipts†	Amounts Paid			Balance
		Interest on Government and Local Body Debts	Interest on Private Investment‡	Insurance Payments§	
1920-21	489	4,800	750	394	-5,455
1921-22	343	5,200	750	343	-5,950
1922-23	307	5,600	750	389	-6,432
1923-24	284	5,900	750	680	-7,046
1924-25	252	6,200	750	327	-7,025
1925-26	256	6,800	750	783	-8,077
1926-27	256	7,100	1,000	699	-8,543
1927-28	384	7,488	1,000	373	-8,477
1928-29	333	7,706	1,000	664	-9,037
1929-30	505	8,280	1,000	650	-9,425
1930-31	242	8,370	1,000	"	-9,128
1931-32	247	7,905	800	962	-9,316
1932-33	169	7,100	800	67	-7,798
1933-34	147	7,100	900	56	-7,797
1934-35	168	6,978	1,000	271	-7,539
1935-36	54	6,739	1,000	386	-8,071
1936-37	52	6,272	1,000	18	7,238
1937-38	54	6,123	1,000	930	-7,999
1938-39	51	6,087	1,000	1,129	8,165

*Source: League of Nations, Balance of Payments, and New Zealand Official Year Books.

†Figures to 1926-27 from Table 44. ‡Figures to 1923-24 interpolated.

§From Table 45. "See Table 45, n.8.

the periods before 1929-30 no recognition was taken of changes in government short-term assets held abroad. Adjustments for these two omissions are made in Table 49.

Summary of Balances of Payments

A summary of the individual balances of payments, as shown in Table 50, serves to throw light on a number of matters. First of all, the evidence indicates that New Zealand has been a net exporter as far as private capital (outside of the trading banks) is concerned. A case in point is the large outflow in the periods 1920-21 and 1921-22, when approximately twenty million pounds left the country. Whatever part of these funds may have been used to pay indebtedness incurred on private account during the war period could at best account for less than eight million pounds.¹² The export probably

¹²Official estimates of the balance of payments for the March years 1914-15 to 1919-20 indicate that there was a net inward movement of approximately seven million pounds. During this same period bank assets abroad increased about fifteen million pounds, indicating an inflow of private capital in the neighborhood of eight million pounds.

TABLE 47*
BALANCE OF FREIGHT AND OTHER SERVICE PAYMENTS
(£'s'g. 000)

Year	Receipts			Payments			
	Shipping Income and Port Fees	Tourists' Expenditures in New Zealand	Immigrants' Funds	Diplomatic and Other Foreign Government Expenditures	Tourists' Expenditures Abroad†	Emigrants' Funds	Diplomatic and Other Expenditures Abroad
1920-21 ..	1,250†	780§	760§	400¶	2,100§	191§	750¶
1921-22 ..	1,000†	738§	780§	400¶	1,935§	190§	750¶
1922-23 ..	1,750†	444§	590§	400¶	1,675§	210§	750¶
1923-24 ..	1,000†	606§	570§	400¶	1,934§	215§	750¶
1924-25 ..	1,250†	708§	785§	450†	2,175§	214§	919†
1925-26 ..	1,500†	576§	670§	432†	1,832§	197§	115
1926-27 ..	1,600†	672§	820§	541†	2,017§	242§	376
1927-28 ..	1,528¶	683	500	840	2,487	415	533
1928-29 ..	1,734	720	320	467	2,540	400	139
1929-30 ..	1,679	1,140	300	564	2,830	360	561
1930-31 ..	1,493	940	390	572	2,620	270	230
1931-32 ..	1,020	590	170	340	1,740	280	404
1932-33 ..	980	550	80	306	1,440	290	882
1933-34 ..	1,045	563	72	303	1,414	320	585
1934-35 ..	1,166	644	81	327	1,946	368	181
1935-36 ..	1,336	796	103	278	2,053	462	869
1936-37 ..	1,432	917	151	169	3,032	428	661
1937-38 ..	1,687	1,115	251	167	2,882	403	1,454
1938-39 ..	1,775	1,306	379	155	3,084	448	646
							561

*From League of Nations, Balance of Payments, and New Zealand Official Year-Books.

†Includes passage money.

‡Based on data in Wilson, op. cit., pp. 441-42; or estimates for calendar years in New Zealand Official Year Book.

§From Table 48 allowing £60 per person for tourists' expenditures in New Zealand, £50 for immigrants' funds, £50 for tourists' expenditures abroad and £100 for emigrants' funds.

¶Includes an allowance of £750 for shipping income.

¶Arbitrary allowance.

TABLE 48*
ANALYSIS OF NEW ZEALAND IMMIGRATION AND EMIGRATION

Class	Year Ending March 31						
	1920-21	1921-22	1922-23	1923-24	1924-25	1925-26	1926-27
Immigrants	15,225+	15,622	11,791	11,373	15,747	13,450	16,513
Tourists and other visitors arriving	13,000+	12,306	7,379	10,092	11,778	9,628	11,192
New Zealanders returning	15,225+	13,200	12,854	12,404	14,687	14,244	14,013
Total	43,500+	41,128	32,024	33,869	42,212	37,412	41,718
Emigrants	1,910+	1,904	2,103	2,149	2,137	1,969	2,421
New Zealanders leaving as tourists	14,000+	12,904	11,768	12,897	14,500	12,210	13,448
Visitors departing	15,915+	15,566	15,310	15,437	13,183	16,547	18,417
Total	31,825	30,374	28,581	30,483	29,820	30,753	34,016

*Computed from detailed figures in Census and Statistics Office, Statistical Report on the External Migration of the Dominion of New Zealand (Wellington: Government Printer, annually).

†As detailed data were not collected for this period, these figures were obtained by adding one-fourth of total 1921 arrivals or departures to three-fourths of 1920 totals. These totals were allocated to the separate classifications according to the percentages obtained for the 1921-22 period.

TABLE 49*

BALANCE OF PAYMENTS ON CAPITAL ITEMS
(£Stg.000)

Year Ending March 31	Net Sales of Securities				Net Purchase of Securities			
	Increase in Public Debt Held Abroad		Decrease in Reserve Funds Held Abroad†		Increase in Public Debt Held Abroad		Decrease in Reserve Funds Held Abroad†	
	Abroad	Abroad†	Abroad	Abroad†	Abroad	Abroad†	Abroad	Abroad†
1920-21 ...	3,100	5,095	27,473	.....	.....	.....	.....	35,668
1921-22 ...	9,400	2,200	1,553	.....	.....	.....	.....	13,653
1922-23 ...	5,500	.....	.....	.....	.....	216	8,384	- 3,100
1923-24 ...	6,900	1,582	.....	.....	.....	.....	1,667	6,185
1924-25 ...	10,800	.....	.....	.....	.....	.....	4,877	5,926
1925-26 ...	8,900	.....	4,929	.....	.....	165	.....	13,664
1926-27 ...	7,400	161	4,155	.....	.....	.....	.....	11,710
1927-28 ...	7,600	.....	.....	.....	.....	2,524	8,240	- 3,164
1928-29 ...	11,100	.....	.....	.....	.....	4,098	6,315	587
1929-30 ...	.....	6,290	8,623	.....	.....	.....	.....	12,468
1930-31 ...	8,058	.....	2,705	.....	.....	7	.....	10,756
1931-32 ...	3,371	.....	.....	.....	.....	1,598	1,572	201
1932-33 ...	.....	2,142	.....	.....	.....	.....	1,937	- 994
1933-34 ...	.....	.....	647	1,199	.....	.....	.....	-21,130
1934-35 ...	.....	19,767	.....	2,240	.....	19,537	.....	- 3,628
1935-36 ...	.....	81	2,021	2,293	.....	.....	3,208	- 2,882
1936-37 ...	.....	432	2,377	3,078	.....	1,916	.....	2,769
1937-38 ...	.....	5	4,521	4,625	.....	.....	.....	5,728
1938-39 ...	.....	.....	4,018	533	.....	.....	.....	13,154
				680				

*Source: League of Nations, Balance of Payments, and New Zealand Official Year Books.

†Figures through 1928-29 from Table 44.

#Source: New Zealand Official Year Books.

§From Table 10 through 1934-35 (converted to £stg. at rates shown in Table 16).

TABLE 50
SUMMARY OF BALANCES OF PAYMENTS AND ESTIMATED NET
MOVEMENT OF PRIVATE INVESTMENT
(£Stg.000)

Year Ending March 31	Merchan- dise Balance*	Interest and Dividend Balance†	Freight and Other Service Balance‡	Recorded Capital Balance§, "	Errors and Omis- sions, Prin- cipally Unreported Capital Movements"
1920-21	-22,642	-5,455	- 149	35,668	- 7,420
1921-22	5,141	-5,950	43	13,653	-12,887
1922-23	6,330	-6,432	549	- 3,100	2,653
1923-24	4,577	-7,046	- 323	6,186	- 3,394
1924-25	2,225	-7,025	- 115	5,926	- 1,038
1925-26	- 7,200	-8,007	376	13,664	1,237
1926-27	- 3,750	-8,543	533	11,710	- 50
1927-28	9,508	-8,477	- 139	- 3,164	- 2,272
1928-29	10,901	-9,037	- 761	587	- 1,690
1929-30	- 1,942	-9,425	- 230	12,468	- 871
1930-31	- 1,380	-9,128	- 404	10,756	156
1931-32	8,528	-9,316	- 882	201	1,489
1932-33	11,753	-7,798	- 585	- 994	- 2,376
1933-34	16,107	-7,797	- 181	-21,130	13,001
1934-35	11,578	-7,539	- 869	- 3,628	458
1935-36	10,179	-8,071	- 661	- 2,882	1,436
1936-37	9,656	-7,238	-1,454	2,769	- 3,633
1937-38	5,283	-7,999	- 646	5,728	- 2,366
1938-39	2,468	-8,165	- 561	13,154	- 6,896

*From Table 42.

†From Table 46.

‡From Table 47.

§From Table 49.

¶Minus figures represent a net outward movement.

reflects the lifting of war restrictions which prohibited the flow of private funds out of New Zealand.

The table also shows quite clearly, that New Zealand is a net importer of private capital during years of falling export prices, i.e., 1922-23, 1925-26, and 1927-28—as well as the depression years 1930-32. This inward movement might well take place through the failure of New Zealand importers to remit as promptly as usual, with the resultant building-up of open-account credits. In view of the large volume of imports, a delay of thirty days in remitting might easily account for an import of four million pounds short-term capital, particularly since such variations are not likely to occur in New Zealand exports, immediate payment being characteristic of agricultural selling whereas open-account transactions are the rule for manufactured goods.¹³

A point of further interest is the evidence that there was a considerable inflow of private capital into New Zealand in the

¹³The use of sight drafts in export trade does not affect this fundamental trade custom.

period 1933-34. This phenomenon is largely explained by the current expectation that the New Zealand pound, which had been pegged at 125 in 1932, would soon be brought back to par with sterling, a belief which was encouraged by the fact that the government was taking over the excess exchange to prevent any loss to the banks in the event of revaluation. While it has been generally recognized that there was an import of capital during this period, the magnitude of the movement has not been fully appreciated, as is indicated by the following testimony presented by the Associated Banks to the Monetary Committee in 1934.

Question 15: To what extent is there evidence that importers may be withholding external payments in anticipation of a return of New Zealand currency to its former parities?

Answer: There is evidence that external payments are being retained in New Zealand meanwhile, but so far as the banks are aware not to any considerable extent.

Question 16: Is there evidence of the withholding or accelerating of capital movements from or to New Zealand by reason of current economic conditions or of the rate of exchange?

Answer: To assist the Government, and at the request of the Government, the banks decline to facilitate the transfer of capital funds from Australia to New Zealand. As to capital transfers from New Zealand, it is clear that the present exchange rate acts as a deterrent.¹⁴

Finally, the table throws some light on the rapid decline of overseas assets during the years 1937 and 1938. According to one economist, this decline represented a "flight of capital" resulting from a feeling of uncertainty among wealthy individuals.¹⁵ Other economists believe that the decline was caused in part by the increase in imports relative to exports, by the repatriation of short-term loans brought into New Zealand in anticipation of a fall in exchange rates, and in part by the increasing relative attractiveness of investments in Australia.¹⁶ It is impossible to gauge exactly the political implications in the outward movement of capital, but the evidence indicates that the outflow was hardly such as to be termed a "flight of capital." First of all, the Labor party came into office in the latter months of 1935, and

¹⁴Monetary Committee, op. cit., p. 30.

¹⁵W. B. Sutch, New Zealand's Labor Government at Work (New York: League for Industrial Democracy, 1940), p. 7: "The reserve of overseas funds, however, disappeared because of the activities mainly of monied individuals in transferring their funds from New Zealand and investing them in Australia or England. This process rapidly reduced New Zealand's overseas funds and it was the flight of capital from New Zealand which possibly hastened the policy of exchange control and import selection."

¹⁶Cf. H. Belshaw, "Import and Exchange Control in New Zealand," Economic Record, XV (December, 1939), 174.

there was no withdrawal of capital until a year later. Secondly, during the depression period there had been an inflow of ten million pounds of private capital—contrary to the net position during the previous eight years of "normalcy," and, again, thirteen million pounds had entered the country during the period of exchange uncertainty, none of which had been withdrawn prior to 1937. It is reasonable to argue that importers and others waited to see if the Labor government would revise the exchange position set by the defeated party and, becoming convinced that no change was to be expected, decided to reduce outstanding book credits. A sharp decline in reserves could be caused either by the trading position or by an outflow of funds. In the third place, since Australia was enjoying a boom during this period, there may have been a transfer of speculative funds to that country.¹⁷ As against this supposition, however, is the evidence in Table 12 (above, p. 33) that New Zealand banks doing business in Australia had a net loss of funds due to their Australian business, a condition not likely to have occurred if there had been substantial transfer of short-term funds to Australia from New Zealand. Finally, it should be remembered that in the years 1920-22 there was an outflow of approximately twenty million pounds of private capital for which no political reason is assignable. It is quite possible that the increase in exchange rates in 1932 led to an accumulation of private funds that would normally be sent abroad and that the final acceptance of the new exchange rate took place after 1936.

One bit of evidence used to support the thesis that there was a flight of capital is the reduction of the number of large deposits held in the Post Office Savings Bank. Depositors having accounts in excess of £400 declined from 44,143 as of March 31, 1938, to 39,965 at March 31, 1939.¹⁸ As a result there was an excess of withdrawals over deposits during this period of £4,163,416, all of which developed after September, 1938,¹⁹ the inference having been made that these funds were transferred abroad. There is, however, an alternative explanation of this occurrence. During the period March 31,

¹⁷League of Nations, Balance of Payments, 1938, p. 59: "The large debit balance in 1936-37 [for Australia] is attributed partly to unrecorded imports of private capital, particularly for the establishment of new enterprises and 'in connection with the speculative and long term investments in Australian mining and other activities'."

¹⁸New Zealand Official Year Book, 1940, p. 694.

¹⁹Reserve Bank Statistical Summary, June, 1939, p. 206.

1938, to March 31, 1939, the government issued new securities in excess of £13,000,000 (excluding refunding issues) which were sold entirely in New Zealand. Table 51 shows that this required a substantial increase in the purchases by the general public, thus causing a reduction in deposits held by individuals and corporations. It should be observed that the heavy sale of government securities caused an

TABLE 51*
ANALYSIS OF HOLDERS OF GOVERNMENT SECURITIES
DOMICILED IN NEW ZEALAND
(£N.Z.000)

Holder	At March 31				
	1935	1936	1937	1938	1939
Post Office Bank	42,247	48,974	54,642	60,010	57,577
Trading banks	5,840	5,082	7,617	7,630	10,063
Trustee banks	3,000†	3,000†	3,000†	3,463	3,836
Reserve bank	2,094	2,037	2,906	2,971	3,661
Life insurance companies ...	8,263	9,382	8,664	8,613	8,600
Fire insurance companies ...	6,846	6,644	6,418	6,623	6,600
Public trustee‡	8,456	8,792	9,896	10,690	11,659
Government departments	1,193	1,801	811	33,513	34,886
Other	47,549	43,577	49,226	45,735	61,112
Total	125,488§	129,369§	143,180§	179,248§	197,994§

*Source: New Zealand Official Year Books.

†Appendix to Journals, Paper B-10.

‡Estimated.

§From Table 14 plus unreported debt (Table 13).

increase in the rate of return on these securities, making it more attractive for persons holding Post Office deposits in excess of £500, on which interest was limited to $2\frac{1}{2}$ per cent, to hold government bonds instead. The major new issues of the government were offered between September and March.

All in all, while there was probably some transfer of funds abroad in 1938-39 due to the political situation, the magnitude of the movement was not such that it could be termed a flight of capital. The more important factors explaining the decline in sterling assets, the fall in price of government securities, and the decrease in saving accounts are the recognized stability of the exchange rate and the policy of the government in raising long-term funds in New Zealand rather than in Australia or London.

PART II

MECHANISM OF ADJUSTMENT TO DECLINE IN VALUE OF EXPORTS

CHAPTER VII

THEORY

Introduction

A review of the economic developments in New Zealand during the period 1920 through 1939 shows quite clearly that the depression years of 1930-34 offer an excellent opportunity to study the mechanism of adjustment of the New Zealand economy to a major disturbance in its international trade. The importance of exports, the detail and completeness of the statistics available, and the marked change in export prices relative to import prices are positive factors pointing to the value of a careful study of this particular period. Equally important is the absence of disturbing elements, due notably to the fact that New Zealand export production is pastoral rather than agricultural and is thus less subject to climatic variation, and to the stability of government policy during this period which assured a borrowing and financial policy more in keeping with the assumptions generally made in developing the theory of adjustment. For these reasons this section is devoted to a review of theory and a comparison of expected and actual results as observable in New Zealand.

Stated in its simplest terms, the problem in theory presented by the New Zealand situation is: What adjustments occur when there is a sharp decline in the demand for a country's export commodities, other conditions being the same? Actually, the New Zealand situation is not a simple case—primarily because the decline in demand for her export products was due to the business depression in England, and consequently there was a stronger support to anticipations that there would be a return to the situation that existed prior to the disturbance than would be the case if the change in demand had been due to a change in tastes, improvement in production, or the imposition of foreign import duties. In any event, however, there would be some anticipation of a return to "normal," and the New Zealand situation represents a change in the degree of the strength of the anticipations rather than in their nature. There was considerable uncertainty concerning the duration of the depression, and consequently the course of the adjustment in the first few years was such as to be expected in theory from a disturbance of this type, regardless of its particular source.

Other than its effect on anticipations, the source of the

decline in demand for a country's exports may have a further influence on theoretical analysis. The change in demand may cause, or may be associated with, other changes that must be incorporated into the analysis. For example, a tribute paid by country A to country B may, by reducing incomes in A, cause a decline in A's demand for B's export products. The nature of the adjustment will be affected by the increase in incomes in B as a result of receiving the tribute, and it may be that income effects will be such that no change in prices will be necessary.¹ A change in tastes is ordinarily considered a type of disturbance unaccompanied by other repercussions (except the adjustment process), but in strict analysis a change in taste resulting in a lower demand for B's exports by country A is usually accompanied by an increase in demand for A's domestic and export products. This redistribution of expenditures in A may lead to changes in the relative prices of products in A and thus cause a series of adjustments that must be made in country B. In a similar way, tariffs or subsidies lead to redistributions of incomes in the country initiating the action and consequently to changes which call for additional adjustments in the "other" country. Again, a change in technology leads to a redistribution of the whole pattern of expenditures and, by affecting factor prices, may alter relative prices of other goods than the one in which the technological improvement took place.

A change in demand for country B's exports that occurs when the resources in A are uniformly increased is an example of a source of change unaccompanied by other ramifications. Relative prices in A will remain unchanged until affected by the adjustments in B arising out of the change in the quantity taken at a given price in A. The nearest approach to a uniform change in the magnitude of resources is the business boom or business depression. Moreover, a business depression is more likely to be useful for purposes of inductive study, as the magnitude of the change in any given period of calendar time tends to be large. The decline in demand for New Zealand's exports is therefore a close approximation of the "pure" case in theory.²

¹For an extended discussion of this situation see Jacob Viner, Studies in the Theory of International Trade (New York: Harper & Bros., 1937), pp. 326-60.

²Perhaps it should be pointed out that most of the well-known inductive studies of international trade theory have given major attention to the influence of capital movements. See, for example, Jacob Viner, Canada's Balance of International Indebtedness 1900-1913 (Cambridge: Harvard University Press, 1924); Harry D. White, The French International Accounts 1880-1913 (Cambridge: Harvard

Turning now to a review of theory concerning disturbances in international trade due to factors affecting demand, it would seem on the surface that a decline in the demand for one country's products due to a business depression in another country would be analogous to the position of foreign countries in the situation pictured by Hume in postulating a decrease of four-fifths of all the money in Great Britain. Hume, of course, postulated that the prices of both domestic and export commodities would be immediately reduced and that the adjustment would take place through diminished imports and expanded exports. In the theoretical case we are concerned with, however, it is assumed that the prices of all commodities except the ones for which the demand has slackened remain constant, or change only in the process of adjustment, a situation comparable to that of the countries trading with Great Britain in the hypothetical case presented by Hume. Actually, a depression caused by a sudden contraction in the means of payments leads to a marked fall in the prices of some commodities, while the prices of other products remain the same. In the New Zealand case the depression in Great Britain caused a marked fall in the prices of agricultural products (New Zealand export products), while the prices of manufactured goods (New Zealand import products) remained almost unchanged. The Hume analysis, which is based on flexible prices and full employment, is inadequate for a detailed analysis of the New Zealand case.

Ricardo

A much better example of the possible mechanism of adjustment is contained in Ricardo's famous wine and cloth illustration. In the Ricardian example it is assumed that an improvement in the process of manufacturing wine in England leads to a decline in the demand for Portuguese wine, while other prices are undisturbed until the adjustment process takes place. In the section reproduced below, attention should be given primarily to the changes that are postulated for the Portuguese economy.

Thus, suppose before the improvement in making wine in England, the price of wine here was 50 l. per pipe, and the price of a certain

University Press, 1933); Roland Wilson, Capital Imports and the Terms of Trade (Melbourne: Melbourne University Press, 1931); J. H. Williams, Argentine International Trade under Inconvertible Paper Money (Cambridge: Harvard University Press, 1920). Other inductive studies, such as Vernon L. Phelps, The International Economic Position of Argentina (Philadelphia: University of Pennsylvania Press, 1938), and Gordon Wood, Borrowing and Business in Australia (London: Oxford University Press, 1930), are mainly descriptive and deal more with monetary theory than they do with trade theory. The attention to disturbances arising from changes in demand in this study supplements rather than repeats previous investigations.

quantity of cloth was 45 l., whilst in Portugal the price of the same quantity of wine was 45 l., and that of the same quantity of cloth 50 l.; wine would be exported from Portugal with a profit of 5 l., and cloth from England with a profit of the same amount.

Suppose that, after the improvement, wine falls to 45 l. in England, the cloth continuing at the same price. Every transaction in commerce is an independent transaction. Whilst a merchant can buy cloth in England for 45 l. and sell it with the usual profit in Portugal, he will continue to export it from England. His business is simply to purchase English cloth and to pay for it by a bill of exchange, which he purchases with Portuguese money. It is to him of no importance what becomes of this money: he has discharged his debt by the remittance of the bill. His transaction is undoubtedly regulated by the terms on which he can obtain this bill, but they are known to him at the time; and the causes which may influence the market price of bills, or the rate of exchange, is no consideration of his.

If the market be favorable for the exportation of wine from Portugal to England, the exporter of the wine will be a seller of a bill, which will be purchased either by the importer of cloth, or by the person who sold him his bill; and thus, without the necessity of money passing from either country, the exporters in each country will be paid for their goods. Without having any direct transactions with each other, the money paid in Portugal by the importer of cloth will be paid to the Portuguese exporter of wine; and in England, by the negotiation of the same bill, the exporter of cloth will be authorized to receive its value from the importer of wine.

But if the price of wine were such that no wine could be exported to England, the importer of cloth would equally purchase a bill; but the price of the bill would be higher, from the knowledge that the seller of it would possess, that there was no counter bill in the market by which he could ultimately settle the transactions between the two countries; he might know that the gold or silver money which he received in exchange for his bill, must actually be exported to his correspondent in England, to enable him to pay the demand which he had authorized to be made upon him, and he might therefore charge in the price of his bill all the expenses to be incurred, together with his fair and usual profit.

If then this premium for a bill on England should be equal to the profit on importing cloth, the importation would of course cease; but if the premium were only 2 per cent., if to be enabled to pay a debt in England of 100 l., 102 l. should be paid in Portugal, whilst cloth which cost 45 l. would sell for 50 l., cloth would be imported, bills would be bought, and money would be exported, till the diminution of money in Portugal, and its accumulation in England, had produced such a state of prices as would make it no longer profitable to continue these transactions.

But the diminution of money in one country, and its increase in another, do not operate on the price of one commodity only, but on the prices of all, and therefore the price of both wine and cloth will be both raised in England, and both lowered in Portugal. The price of cloth, from being 45 l. in one country and 50 l. in the other, would probably fall to 49 l. or 48 l. in Portugal and rise to 46 l. or 47 l. in England, and not offer a sufficient profit after paying a premium for the bill to induce any merchant to import that commodity.

No change whatever takes place in the circumstances of Portugal; but England finds that she can employ her labor more productively in the manufacture of wine, and instantly the trade of barter

between the two countries changes. Not only is the exportation of wine from Portugal stopped, but a new distribution of the precious metals takes place, and her importation of cloth is also prevented.

Both countries would probably find it their interest to make their own wine and their own cloth; but this singular result would take place: in England, though wine would be cheaper, cloth would be elevated in price, more would be paid for it by consumers; while in Portugal the consumers, both of cloth and wine, would be able to purchase those commodities cheaper. In the country where the improvement was made prices would be enhanced; in that where no change had taken place, but where they had been deprived of a profitable branch of foreign trade, prices would fall.

This, however, is only a seeming advantage to Portugal, for the quantity of cloth and wine together produced in that country would be diminished, while the quantity produced in England would be increased.³

It is, of course, unsound to generalize from the specific example discussed by Ricardo, as many of his conclusions relate to the type of disturbance under consideration and the specific condition under which it is presumed to have happened. For example, had the costs of transportation between Portugal and England, including the necessary profits of the traders, been smaller, England might still have had a comparative advantage in the production of cloth sufficient to overcome such costs, so that trade would have been resumed after the initial period of adjustment to the disturbance. Had this been the case, Ricardo probably would have concluded that the only long-run change would have been a transfer of money to England, with a rise in the price of cloth relative to the price of wine in both countries.

Basically, however, it seems clear that the mechanism of adjustment to a decrease in the demand for Portugal's wine involves, according to Ricardo, the following steps: (1) there is a reduction in the demand for bills payable in Portugal relative to the supply of such bills (or a reduction in the supply of bills payable in England relative to the Portuguese demand for such bills); (2) exchange on England rises and exchange on Portugal declines; (3) this situation continues until it is more profitable to ship gold to liquidate debts than it is to purchase bills; (4) the flow of gold out of Portugal drives down the price of wine and the cost of producing cloth, while the inflow of gold into England raises the price of cloth and the cost of producing wine; and (5) this movement in relative prices will continue until all trade ceases or until some other adjustment is reached.

Since Ricardo does not discuss any other adjustment than the

³David Ricardo, The Principles of Political Economy and Taxation (Everyman's ed.; London: J. M. Dent & Sons Ltd., 1937), pp. 84-87.

single one in which trade ceases, his presentation is particularized by the fact that the cause of the disturbance is an improvement in the technology of producing wine in England.

Longfield

Another statement (attributed to Longfield) of the mechanism of the adjustment to a disturbance caused by a shift in demand describes the situation that might be caused by a failure of domestic crops and the consequent increased demand for foreign grains (though, strictly speaking, the disturbance here is a change in the domestic supply situation, the mechanism is the same as if there had been a shift in demand from domestic to imported goods).⁴ Although no analysis is made of the long-run effects of a change in demand (the case being cited merely as an example of a temporary disturbance in a broader treatment of bank policy),⁵ the detailed discussion of the mechanism of adjustment is worth quoting.

When we require several millions worth of corn from the continent, this want of ours does not immediately produce in the inhabitants of the continent a demand for that amount of English goods in addition to their usual consumption. The balance of exchange is thus deranged, and England buying more than it sells, becomes the debtor to the continent for the difference. The exchanges turn against us. A bill on England becomes of less value than a bill for the same sum of money payable on the continent. The effect of this is to encourage exportation, and discourage importation. If the exchanges are 5 per cent. against England, the merchant who sends his goods to a foreign port and sells them for a £100 payable there, receives what is in fact equivalent to £105 at home, since his foreign bill for £100 will sell for a bill for £105 payable in England. His profit is increased by the difference of the exchanges, and reserving the usual profits, he can afford to sell them cheaper by that sum than when the exchanges are at par. The reverse of this happens to the importer who loses by the difference of exchange, and who cannot realize his usual profit, unless he adds the exchange to the price at which he usually sells his goods. As the exporting merchant can afford to reduce the price of English manufactures in the foreign market, he is enabled to sell a greater quantity there than before. A diminution of price always leads to an increased consumption. However, this fall of exchange is never so great as to lead immediately to an increase of exportation sufficient to bring it back to par. Every one can tell how slight an influence a fall of 5 per cent. has over his consumption of any

⁴[Mountifort Longfield], "Banking and Currency," Dublin University Magazine, XV (January, 1840), 1-15, 218-33.

⁵The illustration of a domestic crop failure in the discussion of bank policy was used by Henry Thornton, An Enquiry into the Nature and Effects of the Paper Credit of Great Britain (1802; reprinted; New York: Farrar and Rinehart, 1939). For a more extended treatment of the discussions by nineteenth-century writers on the subject of the mechanism of adjustment to crop shortages, see Viner, Studies in the Theory of International Trade, pp. 295-302.

foreign article; and in cases where there is a fixed duty which must be paid in the currency of the country, the exporting merchant cannot afford to sell his goods to the consumers at a reduction corresponding to the fall in the exchanges. But while English goods, if exported in too great quantities, will glut the foreign markets, and fall in price so as to entail a loss to the exporting merchant, there is an article which will not fall in price, and which can always be exported in considerable quantities at a comparatively trivial expense. This article is bullion, the raw material of which money is made. The merchant who exports bullion when the exchanges are against us, makes a profit equal to the difference of the exchanges, minus the expenses of freight and insurance. These latter expenses are very small. In the evidence upon the Bank of England charter, No. 3,560, the expense of transmitting gold from London to Paris is stated to be about one eighth per cent., and No. 3,359, a profit of one half per cent. is a sufficient remuneration for the merchant who imports or exports it. The difference of exchange can never much exceed this, and therefore can never exercise much influence directly upon our exports and imports. The excess of English bills, must therefore, be paid punctually in gold. This gold will be taken, either from the gold currency of the country, or from the bullion in the possession of the Bank of England. In either case, a reduction in the quantity of the circulating medium takes place. In the one case, part of the circulating medium itself is exported; in the other, the gold is procured in exchange for Bank of England notes, and the notes so exchanged are, thereby, withdrawn from circulation. This diminished circulation has the effect of lowering prices generally in England. There is less money in the market to pay for goods of any kind, whether imported or produced at home. The currency is diminished in quantity and raised in value. This fall in prices encourages exportation, and checks importation, our exports exceed our imports, the balance is paid in gold, which gradually flows back until the former quantity is restored, and the currency is reduced to its former value.⁶

Of particular interest here is the explicit statement that (1) the increased demand for import items does not produce an immediate offsetting demand for export items, and (2) that the excess of bills is paid promptly in gold—assumptions that are implicit in the Ricardian analysis. There is, however, an error in the analysis in the assumption that the outflow of gold will so reduce prices in England that exports will exceed imports and that the gold will thus return. Purely on the basis of the analysis presented, prices in England would fall until exports and imports were equal, with the result that gold simply would cease to flow. In order to explain an inflow of gold, the discussion should center upon the short-run nature of the demand for foreign products.

⁶[Longfield], op. cit., pp. 10-11.

Mill

In John Stuart Mill's writings we find a fuller exposition of the mechanism of adjustment to changes in demand.⁷ The main discussion, it is true, concerns the division of the gain from trade (as compared to no trade) and its relation to relative elasticities of demand and relative technical coefficients of production. Yet it indicates clearly that the adjustment to any disturbance in the demand for a country's products will continue until the changes in relative prices associated with the flow of funds from one country to another are such as to cause the total value of exports to be equal to the total value of imports for each country. In the Ricardian case mentioned above, Mill would have pointed out that after the initial gold shipments the rising price of English cloth would have decreased the quantities and probably the value of Portuguese cloth imports, while the higher costs of producing wine in England and the lower costs prevailing in Portugal would have led to a resumption of wine imports from Portugal in increased quantities and increasing total value. Depending on relative elasticities of demand and the technical coefficients of production, equilibrium will be restored at any point between the rates of interchange existing before the improvement in production and the condition of no trade at all.

Mill would have postulated rising prices of cloth in both countries in his general solution, whereas Ricardo points to falling prices of cloth in Portugal. This difference is due entirely to Ricardo's assumption that cloth was being offered in Portugal just under the price at which it could be produced there, so that any price rise under the disturbance postulated was out of the question. Strictly speaking, imports of cloth into Portugal in the Ricardian case would have ceased almost immediately after the disturbance—unless the English exporters were willing to take less than normal profits for a considerable period of time through ignorance of the basic cause for the unfavorable Portuguese exchange.

In dealing with the situation where there is a change in demand independent of any change in technology, Mill discusses specifically only the case where an increase in demand for a country's export goods arises as a result of the increase in wealth and population of the foreign country. In this situation, he con-

⁷ John Stuart Mill, Essays on Some Unsettled Questions of Political Economy (3d ed.; London: Longmans, Green & Co., 1877), pp. 1-47; and Principles of Political Economy (W. J. Ashley, ed.; London: Longmans, Green & Co., Ltd., 1926), pp. 583-601.

cludes, "the division of the advantage becomes more favorable to a country, in proportion as the demand for its commodities increases in foreign countries."⁸ By his short treatment of this case (two paragraphs) Mill appears to have considered it obvious that an increase in foreign demand would lead to a gold inflow, a rise in price of exported goods, a fall in price of imported goods, with equilibrium reached at a point where a greater quantity of imports was received per physical unit of export.

Marshall

The general type of analysis used by Mill was extended by Alfred Marshall, chiefly through the use of geometric figures.⁹ In particular, Marshall devotes several pages to the probable effect of changes in demand on the terms of trade, treating both the increase and the decrease in demand. While he concludes that a decrease in the demand for a country's exports is likely to turn the terms of trade against her, he is concerned primarily with "normal" cases and the relative elasticities of international demand and does not discuss explicitly specie flows or price movements. In fact, by the use of graphic analysis he conceals his assumptions concerning the demands and conditions of production for individual products. He apparently does not take into consideration that the change in demand, by altering the range of goods produced in each country, may cause a change in the shape and location of the curves.¹⁰

Ohlin

A detailed analysis of the mechanism of adjustment to a disturbance in international trade caused by a change in demand is given by Bertil Ohlin.¹¹ Most previous writers, as is indicated above, elected to illustrate the mechanism of adjustment by assuming an improvement in production or a tax, while they treated the effect of a change in demand in very general terms, if they recognized it at all.¹² Ohlin, however, was particularly

⁸Essays on Some Unsettled Questions, p. 33.

⁹Alfred Marshall, Money, Credit, and Commerce (London: Macmillan & Co., 1923), pp. 342-45.

¹⁰Cf. Viner, Studies in the Theory of International Trade, p. 358.

¹¹Bertil Ohlin, Interregional and International Trade (Cambridge: Harvard University Press, 1935), pp. 498-510.

¹²There is an extensive discussion of the influences of changes in demand in James Steuart, An Inquiry into the Principles of Political Economy (London: Millar & Cadell, 1767), I, 161-225. Steuart, however, does not recognize the influence of price on the quantity taken or supplied, and hence his discussion hinges on the long-run influences of misery or opulence. In such books as Adam

interested in the case of a change in demand, as he wished to emphasize the possibilities of variations in relative costs of particular commodities and thus draw attention to one of the rigidities imposed on theory by the simplifications of the labor theory of value.

In discussing the effect of an increase in the demand for A's products, Ohlin concludes that the terms of trade, measured in the quantity of A factors given in exchange for goods containing a certain quantity of B factors, will move to the advantage of A. The mechanism of adjustment in the balance of payments caused by the increased sale of A's export goods is described as follows.

This readjustment of the trade balance is brought about under the influence of the following changes in A: (1) the increased buying power in A leads to greater purchases of all sorts of goods, and hence to a growth of imports and a decline in exports; (2) the change in relative commodity prices tends to turn A's demand from home market goods to imports and ordinary export goods, as the latter two classes have been cheapened compared with the former. In that way imports are further increased and exports reduced; (3) industries producing special export goods and home market goods prosper and expand, leaving less productive resources for industries producing other export goods and goods competing with imports; less energy is used to market these sorts of goods. An opening is made for greater imports, while the expansion of ordinary exports is retarded.

It is unnecessary to repeat from the analysis of capital imports and duties a description of the way in which the banking system in A reacts towards a surplus of foreign exchange, and how the volume of credit and purchasing power is increased. What has been said about a possible secondary or tertiary inflation in A and deflation in B holds for the present case also.

It may be worth while, however, to emphasize once more that the immediate reactions, in particular the development of prices, towards such monetary changes differ considerably according to the general economic situation. If business is poor in A, and plenty of surplus capital is available, the increased demand from abroad may lead to increased production but only slight price increases. (Thus, increases in the foreign demand for a country's products may bring some relief from an international depression. . . .) Interest rates will fall, but this may lead less to increased domestic demand for capital than to investments on short term and perhaps on long term account abroad. Commodity imports are automatically expanded owing to increased buying power, but less so than commodity exports. The balance of payments is nevertheless kept in equilibrium through international capital transactions. There is no immediate need of the readjustment of production and demand described above.

Sooner or later, however, the business situation will improve, the surplus capacity will fall, and some readjustment will be re-

Smith, An Inquiry into the Nature and Causes of the Wealth of Nations 1776 (reprinted; London: J. M. Dent & Sons, 1910), J. E. Cairnes, Some Leading Principles of Political Economy (New York: Harper & Bros., 1874), and F. W. Taussig, International Trade (New York: Macmillan Co., 1923) there is no theoretical discussion of the adjustments to a change in demand.

quired. Furthermore, A will not continue to pile up foreign investments to the extent necessary to keep the balance of payments in equilibrium without further readjustments in trade. Consequently credit and purchasing power in A will be further expanded, and the tendency to higher prices and shifts in industry will be strengthened. Evidently, the reaction towards a temporary but substantial increase in foreign demand will be quite different when the business situation in A is poor, from what it would be when conditions are good, with no surplus capital available and the domestic demand for capital sensitive to interest reductions. In the one case commodity price changes will play a large part in the mechanism of adjustment; in the other that part will be insignificant.¹³

In his attempt to show that gold flows are not a necessary part of the mechanism, Ohlin has emphasized the type of situation in which price changes are not part of the adjustment process. However, the differences between his analysis and the so-called "classical" statement are not so much due to errors in the latter as they are to differences in assumptions. Ohlin, for example, implicitly assumes that foreign exchange is bought and sold chiefly by banks and that exchange thus held is considered part of the reserves of the bank. If this were not true, it is unlikely that (1) there would be a fall in domestic interest rates as a result of improved business in A; (2) that the fall in interest rates would stimulate foreign long- and short-term investments; or that (3) there would be a secondary or tertiary expansion of credit. If the banks were the only dealers in foreign exchange they would, as Ohlin states, allow surplus exchange to accumulate (which is the equivalent of investing on short term abroad) as an alternative to importing gold. The pressure of these funds, which are considered part of the banking reserves, would lead the bank to lower domestic interest rates in view of the "safe" opportunity to increase earnings. Finally, if the lower rates led to increased domestic borrowing, or if the bank increased its portfolio of domestic securities, the secondary expansion of credit would occur.

Writers of the "classical" school, however, assumed that dealings in foreign exchange were carried on by individuals and institutions other than the banks and made the further implicit assumption that gold was the only asset regarded as a reserve by the banks. As a result, bill merchants were presumed to vary the price of exchange freely, as their profit came from trading rather than holding bills to maturity.¹⁴ As a result, an excess of bills

¹³Ohlin, *op. cit.*, pp. 506-7.

¹⁴Thornton, for one, recognized that there would be no gold flows if bills were allowed to accumulate. He even pointed out that the bill market might

payable in B would soon cause them to depreciate to the point where it would be more profitable to ship gold, and then, and only then, the mechanism of secondary expansion of credit would come into play.

Even if the banks became holders of exchange through the process of discounting, they would, to the extent that the bills were not considered part of their reserves, be reluctant to increase their holdings and might very well increase the interest rate to discourage requests for accommodations. This procedure in itself would tend to decrease the value of bills payable in B and would favor gold shipments. If the high interest rate in A encouraged short-term lending from B, the supply of bills payable in B would increase, with a resultant situation more favorable to the movement of gold from B to A.

It is clear, then, that the "classical" emphasis on the importance of gold is due to the assumptions concerning the operations of the exchange market. In order to charge the earlier writers with error, it is necessary to show that their assumptions were wrong—a task which calls for a careful study of English banking practices. The error, if there is any, is properly chargeable to those who continue to emphasize gold movements without recognizing that there had been a change in exchange operations and bank policy.¹⁵

One statement in Ohlin's analysis deserves further consideration: the statement that an increased demand for some export goods will cause the prices of home-market goods to rise in relation to those of import and ordinary export goods. Presumably Ohlin means that the increase in demand for certain exports will cause a rise in the prices of factors of production, which in turn will lead to a rise in price of home-market goods. The prices of ordinary export goods presumably do not rise, since they are in competition with goods from countries in which factor prices have not risen. However,

shift from one market to another, i.e., that short-term lending by one country might be replaced with short-term lending from the other. He dismissed this, however, as a temporary factor: "It may happen, for instance, that in consequence of Hamburg having become richer through the favorable harvest enjoyed in the surrounding countries, and through the high price obtained for its exported corn, Hamburg merchants being in debt to London merchants may change, and a contrary customs become prevalent. If this new debt of London to Hamburg should be permitted to exist in the same manner as the Hamburg debt may be supposed to have existed before, the exchange will not be affected by it" (op. cit., p. 154).

¹⁵It should be emphasized that the difference between "classical" (Ricardian) and "modern" (Ohlin) theory is not the difference between assuming a simple specie currency and a complicated banking mechanism. The major difference is the degree to which it is assumed that banks will consider bills payable in a foreign country the equivalent of gold as a banking asset.

it should be recognized that ordinary export goods will not continue to be produced under these conditions (on the assumption, of course, that there were no excess profits and no external diseconomies in the industry) except for the period during which specialized fixed equipment could be used without replacement. The long-run expectation is that some goods will no longer be manufactured for export, becoming instead home-market goods or even imports. Only in very special cases (i.e., under the assumption that ordinary export goods are uniformly produced with a lesser proportion of the factors used in the special export goods than are used in the production of home-market goods) will the prices of home-market goods rise in relation to the prices of ordinary export goods as a long-run situation.

The National Income Multiplier Theory

In recent years there has developed a body of theory concerning international trade adjustments known as the multiplier analysis. This theory, which has its roots in the writings of Lord Keynes, carries the implicit assumption that prices are rigid to downward changes and consequently the mechanism of adjustment is achieved primarily through changes in the amount of the national monetary income. The existence of unemployment and continued borrowing as long-run phenomena is recognized in the theory, and it is in these phases that the theory differs most sharply from the earlier formulations.

A fairly complete statement of the application of the multiplier analysis to international trade theory has been made by Fritz Machlup.¹⁶ He recognizes explicitly the rigid assumptions involved but is inclined to hew to his analysis in spite of these difficulties—probably because he contemplates the multiplier as an expansive force in a world of unemployment rather than as a contracting element such as it must be in the situation analyzed in this study.¹⁷ Some attention is paid to the influence of reduced investment in one of the two countries involved, but in no case does Machlup deal with an "autonomous" decrease in exports as the disturbing factor.

In view of the fact that previous discussions of the multiplier

¹⁶International Trade and the National Income Multiplier (Philadelphia: Blakiston Co., 1943). See also Lloyd A. Metzler, "The Transfer Problem Reconsidered," Journal of Political Economy, L (June, 1942), 397-414.

¹⁷Ibid., pp. 19-23 and 198-211.

theory have dealt only with an increase in the demand for a country's exports, it is of particular value to trace through the repercussions occasioned by a decrease in the demand for internationally traded goods. Table 52 shows the simple two-country case where a change in tastes in country B leads to a decrease in its imports from country A. In country A the failure to sell goods to B reduces the incomes of the exporters. In accordance with the constant propensities in regard to the disposition of incomes, it is assumed that 60 per cent of the lost income will be reflected in lower purchases of home-market goods, 30 per cent in lower imports from country B, and 10 per cent in a decreased rate of savings. In country B the money diverted from imports in Period 1 will presumably be spent on home-market goods and services and will thus increase the money incomes of the inhabitants of B by the full amount of the diversion. The increased incomes in Period 2, however, will in part be spent on more home-market goods, in part saved, and in part spent on goods imported from A. The spendable income in Period 3 in country B will be made up of the funds that, prior to the disturbance, would have been spent on imports plus the increased expenditure on home-market goods by the recipients of income in Period 2, less the amount lost by B exporters who are able to sell less to country A. In country A the initial loss in income to exporters is in Period 3 reinforced by the lower incomes of the producers of home-market goods and is only in part offset by the increased purchases of exports as the result of somewhat higher incomes in B. Initially, exports from A drop very sharply, and although they rise slightly through time, they remain substantially less than prior to the disturbance. Imports from B to A fall steadily but never fall as far below the pre-disturbance level as do exports. Equilibrium is reached when the loss of incomes to native goods producers in country A plus the net loss of incomes to exporters in the same country becomes a constant.¹⁸ The "equilibrium" unfavorable trade balance of country A is financed by the increased willingness on the part of country B to hold idle balances of A funds. Unemployment increases in A and is decreased in B.

¹⁸The flow of national income will continue to shrink if the decrements of income in each time period are not the same. If the initial (predisturbance) rate of export is defined as ΔX_a , the new income to export producers is the previous rate of export less the induced decrease in imports in Country B, $\Delta m_b Y_b$. The change in the flow of income to native goods producers is, by definition, $\Delta c_a Y_a$. Hence equilibrium is reached when $\Delta c_a Y_a + (\Delta X + \Delta m_b Y_b)$ is stable. (For definition of symbols and verification of formula see Machlup, *op. cit.*, p. 78.)

TABLE 52*

THEORETICAL RESULTS OF AN AUTONOMOUS DECREASE IN B'S DEMAND
FOR A'S EXPORT GOODS UNDER THE MULTIPLIER ANALYSIS

Country A ($S = 0.1$, $M = 0.3$, $C = 0.6$)							Country B ($S = 0.2$, $M = 0.2$, $C = 0.6$)								
Past ΔY	ΔC	ΔS	ΔM	In-duced ΔX	Auton-omous ΔX	Net ΔX	Δ Trade Bal-ance	Past ΔY	ΔC	ΔS	In-duced ΔM	Auton-omous ΔM	Net ΔM	ΔX	Δ Trade Bal-ance
1..	.....	.....	.....	.....	-100.00	-100.00	-100.00	.....	.....	.....	.....	-100.00	-100.00	.....	100.00
2..	-100.00	-60.00	-10.00	-30.00	20.00	-80.00	-50.00	100.00	60.00	20.00	20.00	-100.00	-80.00	-30.00	50.00
3..	-140.00	-84.00	-14.00	-42.00	26.00	-74.00	-32.00	130.00	78.00	26.00	26.00	-100.00	-74.00	-42.00	32.00
4..	-158.00	-90.80	-15.80	-47.40	27.20	-72.80	-25.40	136.00	81.60	27.20	27.20	-100.00	-72.80	-47.40	25.40
5..	-163.60	-98.16	-16.36	-49.08	26.84	-73.16	-24.08	134.20	80.52	26.84	26.84	-100.00	-73.16	-49.08	24.08
6..	-171.32	-102.78	-17.13	-51.39	26.28	-73.72	-22.53	131.44	78.84	26.28	26.28	-100.00	-73.72	-51.39	22.53
7..	-176.50	-105.90	-17.50	-52.50	25.49	-74.51	-22.01	127.45	76.57	25.49	25.49	-100.00	-74.51	-52.50	22.01
8..	-180.41	-108.24	-18.04	-54.12	24.81	-75.19	-21.07	124.07	74.44	24.81	24.81	-100.00	-75.19	-54.12	21.07
9..	-183.43	-109.44	-18.34	-55.02	24.06	-75.94	-20.92	120.32	72.18	24.06	24.06	-100.00	-75.94	-55.02	20.92
10..	-185.38	-111.24	-18.54	-55.62	23.46	-76.57	-20.85	117.16	70.30	23.43	23.43	-100.00	-76.57	-55.62	20.85
∞	-200.00	-120.00	-20.00	-60.00	20.00	-80.00	-20.00	100.00	60.00	20.00	20.00	-100.00	-80.00	-60.00	20.00

*The notation in this table is the same as used by Machlup (op. cit.). S is the proportion of income saved, M the proportion spent on imported goods, and C the proportion spent on home-produced goods. ΔY in country A is the change in money income determined by C (the change in expenditure on home-produced goods) plus net ΔX (the net change in value of goods exported to country B). In country B, ΔY is determined by ΔC (the change in expenditure on home-produced goods) plus ΔX (the change in value of exports to country A) plus the original diversion of income from import goods to home-market goods (i.e., autonomous ΔM).

Table 53 shows the process of adjustment when the cause of the decreased demand for A's exports is a decrease in the rate of new investment in B. The decrease in the rate of investment causes incomes to decline in B, and the lowered incomes cause a lower rate of spending on native goods, import goods, and savings. The lower expenditure on goods imported into B reduces the incomes of exporters in A, a situation which causes a decreasing spiral of lower expenditures on home goods and B's export products. As before, exports fall more rapidly than imports, but the fall in both items is steady throughout the whole period of adjustment. Equilibrium is reached with an unfavorable trade balance for A as exports fall to a lower level than imports.¹⁹ The unfavorable balance is, presumably, supported by the banking system of B in spite of a lower rate of savings in that country. The absolute decline in employment in country B is greater than the decline in A, but both countries suffer.

The multiplier analysis, in its most rigid application, minimizes the influence of relative prices as part of the adjustment process. Emphasis being placed on employment as the equilibrating factor, it is assumed that international payments will be balanced by unilateral private and governmental credits. Changes in the magnitude and even the direction of the continuing flow of capital are considered integral aspects of the adjustment process. Whether these assumptions are likely to be true or not true is a discussion that is reserved for the next chapter. In any event, the concepts are quite different from those generally accepted by economists of the traditional or classical periods.

Restatement of the "Classical" Theory of Adjustment
to a Decrease in Demand for Export Goods

Since there has been no explicit discussion of the adjustment to a decrease in the demand for a country's export goods under the general assumptions of "classical" theory, a presentation will be made in this paper. It will be assumed: that the decrease in

¹⁹In the most general case (see Machlup, *op. cit.*, p. 175) the change in income in Country A (ΔY_a) is equal to the rate of home investment (ΔI_a) plus the income of exporters ($\Delta X_a + \Delta m_b Y_b$) plus the income to producers of home-market goods ($\Delta C_a Y_a$). In the particular case shown here it is assumed that there is initially no home investment or export production, hence the equilibrium equation is

$$\begin{aligned} Y_a &= c_a Y_a + m_b Y_b, \\ C_a Y_a &= Y_a - S_a Y_a - m_a Y_a, \\ S_a Y_a &= m_b Y_b - m_a Y_a. \end{aligned}$$

and since
it follows that

TABLE 53*

THEORETICAL REPERCUSSIONS IN COUNTRY A OF AN AUTONOMOUS DECREASE OF NEW
INVESTMENT IN B UNDER THE MULTIPLIER ANALYSIS

Country A ($S = 0.1$, $M = 0.3$, $C = 0.6$)							Country B ($S = 0.2$, $M = 0.2$, $C = 0.6$)							
	Past ΔY	ΔC	ΔS	ΔM	ΔX	Δ Trade Bal- ance		Past ΔY	ΔC	ΔS	ΔM	ΔX	Δ Trade Bal- ance	$-\Delta I$
1 ...	.....	.....	.....	.....	.....	.....	1 ...	.....	.....	.....	.....	.....	.....	-100.00
2 ...	.....	.....	.....	.....	.....	.....	2 ...	.....	.....	.....	.....	.....	.....	-100.00
3 ...	-20.00	-12.00	-2.00	-6.00	-20.00	-20.00	3 ...	-100.00	-60.00	-20.00	-20.00	.....	.....	-100.00
4 ...	-44.00	-26.40	-4.40	-13.20	-32.00	-26.00	4 ...	-160.00	-96.00	-32.00	-32.00	-6.00	20.00	-100.00
5 ...	-66.80	-40.08	-6.68	-20.04	-40.40	-27.20	5 ...	-202.00	-121.20	-40.40	-40.40	-13.20	27.20	-100.00
6 ...	-86.96	-52.20	-8.70	-24.21	-52.14	-26.84	6 ...	-234.40	-140.64	-46.88	-46.88	-20.04	26.84	-100.00
7 ...	-104.34	-62.64	-10.44	-31.32	-57.32	-27.93	7 ...	-260.68	-162.42	-52.14	-52.14	-24.21	27.93	-100.00
8 ...	-119.96	-72.00	-12.00	-36.00	-60.66	-26.00	8 ...	-286.63	-171.96	-57.32	-57.32	-31.32	26.00	-100.00
9 ...	-132.66	-79.62	-13.27	-39.81	-63.60	-24.66	9 ...	-303.28	-181.98	-60.66	-60.66	-36.00	24.66	-100.00
10 ...	-143.22	-85.92	-14.32	-42.96	-66.12	-23.79	10 ...	-317.98	-190.80	-63.60	-63.60	-39.81	23.79	-100.00
11 ...	-152.04	-91.20	-15.20	-45.60	-68.26	-23.16	11 ...	-330.61	-198.36	-66.12	-66.12	-42.96	23.16	-100.00
12 ...	-159.46	-95.70	-15.95	-47.85	-70.08	-22.66	12 ...	-341.32	-204.78	-68.26	-68.26	-45.60	22.66	-100.00
13 ...	-165.78	-99.48	-16.58	-49.74	-71.62	-22.23	13 ...	-350.38	-210.24	-70.08	-70.08	-47.85	22.23	-100.00
14 ...	-171.36	-102.84	-17.14	-51.42	-72.92	-21.88	14 ...	-358.09	-214.86	-71.62	-71.62	-49.74	21.88	-100.00
15 ...	-175.76	-105.48	-17.58	-52.64	-74.04	-21.50	15 ...	-364.60	-218.76	-72.92	-72.92	-51.42	21.50	-100.00
∞	-200.00	-120.00	-20.00	-60.00	-80.00	-20.00	∞	-400.00	-240.00	-80.00	-80.00	-60.00	20.00	-100.00

*For explanation of notation see note to Table 52.

demand is due to a change in tastes; that the income released by the shift in demand is so widely distributed over other commodities that we can safely ignore the repercussions from this aspect of the change; that prior to the disturbance the balance of payments was in equilibrium (i.e., that the value of recurring export items was equal to recurring import items); and that there were no long- or short-term capital movements. The discussion that follows will be divided into three sections—assuming, first, that the country is on a gold standard with the dealers in exchange separate and independent of the banks; second, that the country has an inconvertible paper money; and, finally, that the banks follow a policy of holding the exchange at par even though it is necessary to engage in short- or long-term borrowing to do so. This last assumption could exist under either type of international monetary standard.

Under a gold standard the immediate impact of a decline in the foreign demand for a country's export goods would be to lower the total value of exports, either through smaller quantities taken or, as traditionally assumed, through a falling price. The lower value of export goods would lower the money incomes of exporters. This in turn would tend to lower not only the value of goods they imported but also the income of the producers of home-product goods and services, thus causing a further decline in imports. Although the declining demand for imports might be sufficient to lower the world price of import products, it is hardly likely that, even with all these factors at work, the value of goods imported would decline as rapidly as the value of exports. The supply of foreign currency would be less than the demand, and the foreign currency would consequently appreciate in terms of the local currency. As soon as the foreign currency appreciated to the point where it became profitable to ship gold, there would be an outflow of this commodity and a consequent decline in the basic reserves of the banks. This condition would lead to a contraction of the local currency, which would lead through the initial income effect to lowered imports and to increased exports. The contraction of the local currency would in addition lead to lower factor prices, which would make possible the production of home-market goods at lower costs, permitting in time the substitution of locally produced goods for goods previously imported. Competition with imported goods would be more attractive than the production of export goods, as the spread between cost and price for imported goods would have risen slightly, while for export goods it would have fallen markedly. There would, therefore,

be a shift of resources from the production of export products to the production of home-market goods. Equilibrium would be reached with a reduced physical volume of imported goods at approximately the same prices as before the disturbance, a reduced physical volume of exports at prices slightly lower than before the disturbance, and an increased volume of production of home-market goods at prices slightly lower than before. The volume of money in circulation would have decreased, factor prices would be less, and real income would have decreased.

Under an inconvertible paper currency, the initial impact would be as described above. However, there would be no predictable limit to the appreciation of the foreign currency and the adjustment would proceed through changes in relative prices. An appreciation of the foreign currency would tend to increase the incomes of exporters, expressed in terms of the local currency, and also the prices of import goods. The rising incomes of the exporters would tend somewhat toward increased imports, but this tendency would be offset by the higher prices of import goods relative to export goods and home-product goods. The change in relative prices would cause an increase in the consumption of home-market goods, in part by the diversion of income and in part by the direct substitution of locally produced products for goods formerly imported, which would in turn cause a shift of resources from the production of export goods to the production of local goods. The final equilibrium would be reached with the foreign currency somewhat appreciated, lower physical exports, and lower physical imports. The value of imports and of exports would, of course, be equal, but in terms of the local currency each would be lower than before the disturbance. Real incomes would be lower, as reflected in the markedly higher prices of import goods and the somewhat higher prices of home-market goods due to the production of goods formerly imported. The price of export goods in terms of the local currency would be the same or only slightly lower than before the disturbance.

Still a different course of adjustment would be followed if, under a gold standard, the banks should follow a general policy of holding the exchange rate at par.²⁰

²⁰The assumption that an effort will be made to hold the exchange rate at par is of more than academic interest in view of the growing tendency to stabilize exchange rates through equalization funds. To the extent that the exchange funds are financed through foreign borrowings the analysis is the same as described in the following paragraphs. Should the equalization fund be financed by domestic borrowing, the process of adjustment would depend on whether the nature of the financing was in-

The initial impact of the decrease in the foreign demand for exports would, as before, be to decrease the supply of bills and consequently to put pressure on the exchange. If the banks or other dealers in exchange were willing to reduce whatever working balance or reserve balance of bills payable abroad they might possess, the initial pressure on the exchange would be met without difficulty. If there were no balances held abroad, or if their holders did not wish to make them available, domestic importers might conceivably secure extended credit from abroad. Stated in more explicit terms, the decline in value of exports would cause A's currency to begin to depreciate in terms of B's unless offset by an inflow of capital from (1) the repatriation of foreign investments or (2) short- and long-term borrowing abroad. The fund of capital invested abroad sets a limit to the inflow of capital from repatriation, but theoretically there is no clear-cut limit to the capital that might be borrowed abroad. Perpetual borrowing has not been considered an adjusting factor in "classical" theory, as it sets up a train of events which tend to maintain imports without increasing the value of exports, and, through interest payments on the borrowed funds, to increase the demand for foreign currency.

Assuming, however, that the exchange rates were initially kept constant by the banks through foreign borrowing, the decline in demand for export goods would still call for some adjustments in A. For example, if A continued to export goods at the same rate as before the change in demand, the price of such goods would fall (after allowing for the possible, but not probable, piling-up of stocks of A's export goods by foreign importers) to the point where the volume of goods would be cleared in the market. The effect of the lower price on export producers presumably would be to discourage production—a factor tending toward adjustment (in terms of increasing the value of exports) if the foreign demand for export goods were inelastic, and toward further complexity if the foreign demand for export goods were, as it is likely to be, elastic. Reduction of export production, however, would lead in the short run to unemployment in export industries and thus tend toward lower factor prices in A. This latter condition leads generally to lower prices for home-market goods, increasing their sales relative to

flationary or deflationary. Inflationary financing would lead to chaos, as exporters would be squeezed out of existence while imports would rise indefinitely. Deflationary financing would lead to adjustment through the same process as described under the orthodox gold standard.

imported products, and to lower costs of production generally, which in turn may lead to the domestic manufacture of some goods previously imported. These developments would tend to raise factor prices somewhat, but not to the levels that previously existed. The profit position of export producers would be improved to the extent of the lowered factor costs that ultimately result.

The lower prices of export goods, particularly since they would be initially lower relative to both import goods and home-market goods, would tend toward increased domestic consumption of export goods. This might or might not be an adjusting factor, depending on whether the foreign demand for export goods were inelastic or elastic. If, in addition, the shift in demand toward export goods were entirely at the expense of the consumption of home-market goods, there would be unemployment in the home-market goods industry and a tendency toward lower factor prices generally in A. If the shift in demand were entirely at the expense of import goods, the impact of the adjustment factor on the balance of payments would be felt more quickly (assuming import prices not to be affected by the shift in demand).

It is quite possible, of course, that the decreased demand for A's export goods would not cause these products to fall in price but would lead export producers in A to restrict output immediately. This would lead directly to unemployment in export industries and would set the condition for a general lowering of factor prices in A. Compared with the price adjustment in export goods, simple output restriction would lessen the magnitude of necessary changes if the foreign demand for A's exports were inelastic but would make the adjustment process more severe if foreign demand were elastic. This statement is subject to the modifications concerning the possible elasticity of substitution between export goods and import or home-market goods described in the above paragraph. Conceivably, export producers might continue operations at the old rate but accumulate domestic stocks while exporting at the new rate. In order to do this, they would be obliged to draw down idle balances or borrow locally—in either event weakening the reserve position of domestic banks. While this operation would relieve the domestic economy of any immediate adjustment, it is a self-limiting device and cannot be looked upon as anything except a temporary factor. This would be particularly true under the assumption made that there would already be substantial foreign borrowing to sustain the exchange.

Finally, it is possible that a decreased price for export goods caused by a slackening in the demand might lead to increased output on the part of export producers. This result would be most likely if the export goods were mainly agricultural products and the individual producers increased production in an effort to maintain their absolute incomes in the face of falling prices. Such an occurrence would aid in the adjustment if the demand were elastic but would add to the complexity if the foreign demand were inelastic, as the added quantities exported would bring a lower total value of exports. It may be assumed that the increased output in the export industries would come from the more intensive use of factors of production rather than through a shift of factors from home-product industries—in which case the price of domestic factors would not increase.

Except for the possibilities of producing for stock or of using factors more intensely, neither of which is likely to occur to such a degree as to effect a full adjustment to the disturbance, the decline in demand for export goods would be reflected in lower money incomes in A.²¹ Reduced incomes are most likely to be felt in the export industries, although if export prices fall and there is a marked shift of purchases toward the domestic consumption of export goods, the burden of income reduction would also fall quite quickly on home-market goods producers. In any event, the reduction of income in one group would spread to other groups so that even in the absence of price changes there would be a decrease in imports. It is quite probable that there would be, temporarily, a smaller consumption of home-market goods, leading to unemployment and eventually to a fall in domestic factor prices. The distribution of the decreased purchases between domestic and import goods, prices remaining constant, depends on relative income elasticities of demand—the decrease in purchases being greatest where income elasticity is highest.

It should be observed that in the case of a decrease in demand for export commodities, there are two opposing factors at work affecting the domestic consumption of export goods. A decrease in the prices of export goods relative to other goods tends toward increased domestic consumption of export products, whereas the decreased buying power of the economy as a whole tends toward a decrease in the domestic consumption of all goods, including export

²¹The foreign borrowing to maintain the exchange at par will be less than the shrinkage of the money incomes of the exporters.

goods. If the domestic price elasticity of demand for export goods is small and income elasticity high, the effect will be to decrease the quantity of export goods consumed locally. Such a development, by making more goods available for shipment abroad, would be favorable to the adjustment of the trade balance if the foreign demand for the goods was elastic, but not otherwise.

In connection with the income analysis it has been tacitly assumed that foreign borrowing to sustain the exchange rate would be performed by the banks or dealers in exchange. If the foreign borrowing had been carried on by importers (by not remitting promptly), the incomes of the importers available for domestic expenditure would have been maintained, although the income to exporters was decreased. If the banks had done the borrowing, the income so received from abroad would permit initially the maintenance of the normal credit policy; in time, however, local credit would be tightened as a result of the effect of foreign borrowing on the reserve position of the bank. Note, however, that long-term financing abroad by banks (through the sale of bank stock, for example) may influence a more liberal domestic credit policy.

In the long run, regardless of the assumptions concerning the international monetary standard, the "classical" assumptions (moderate flexibility of prices and some internal mobility of resources) indicate that the final adjustment to a permanent decrease in the demand for a country's exports is a decrease in the proportion of factors of production employed in export industries, an increase in the range of home-market goods, and a decrease in the value of total imports.²² The price of home-market goods will be lower relative to the price of imported goods, while that of export goods will probably be lower relative to both groups of commodities. There will be some shifting of resources from export industries to home-market industries. The extent to which the changes take place and whether a particular price level falls, or remains constant while other prices rise, are determined largely by the particular conditions that have been outlined above.

Two possible actions by banks (under a gold or gold-exchange standard) have already been indicated in the above discussion: (1) to support the exchange by drawing down foreign balances or

²²In this part of the analysis, as well as throughout the discussion, tourist receipts are considered the result of an export industry, tourist expenditures abroad as imports, freight payments or receipts as imports or exports, and other "invisible" items in the balance of payments accordingly.

borrowing abroad and at the same time to encourage an expansion of domestic credit to support domestic buying power; (2) to permit the exchange to turn against the country and to enforce a secondary contraction of credit to protect the banking assets. The particular action that is likely to be taken depends on the reserve position of the banks, the general objectives of bank policy, and the reaction of bank executives to the magnitude of the disturbance and its probable permanence.²³ Since it is unlikely that the banks can or will support the exchange indefinitely, the long-run action will probably involve a secondary contraction in the domestic means of payment. The major effort of the banks, if they were to follow an enlightened policy, would be to minimize the immediate impact of the disturbance and to distribute the effect through time in order to permit an orderly readjustment. It is distinctly to the banks' interest to prevent the downward spiral of a business depression which might very well result from too sharp an impact. On the other hand, too much effort to preserve the status quo in the face of a major change would not only subject the banks to the danger of failure but would be perpetuating an uneconomic allocation of resources.

Another factor that may considerably influence the working-out of the mechanism of adjustment is the action that might be taken by the government. In theoretical discussions it is ordinarily assumed that the government will follow a policy of balanced budgets and in consequence will not affect the adjustment procedure. It is as unreal to make this assumption as it is to assume that banks carry only the minimum reserves and expand or contract credit according to movements in their primary assets. For example, the government might cause a secondary expansion of credit in the economy by borrowing from banks to finance ordinary expenditures, or it might cause a secondary contraction if it was decided that in light of the disturbance the country was overborrowed and that a determined effort should be made to reduce outstanding debt. Action by the government to suspend gold payments by the banks in the case of sudden disturbances has been so frequent that it might well be included in trade theory. The result of such action is, of course, to cause the adjustment to operate through the variation in exchange rates rather than through a deflation at home. Again, government action to maintain the exchange rate is by no means

²³Cf. Viner, Studies in the Theory of International Trade, p. 395.

unknown—an action which tends to emphasize internal readjustment.²⁴ In the event of a sudden decline in the demand for exports the government has the power to subsidize the distressed industries, raising the necessary funds through taxation or through borrowing. Such an action would considerably modify the mechanism of adjustment—acting in the latter case to distribute the burden of income adjustment to the community as a whole rather than let it rest with the distressed industry.

It is, of course, impossible to predict what a government might do. There is some reason to believe that it would be wiser to force the adjustment through a change in exchange rates in this particular case rather than risk severe internal deflation. Possibly the situation could be met by pegging the exchange through a stabilization fund and at the same time instituting a public works program financed from foreign borrowing to maintain internal income during the period of readjustment. Certainly, a policy of laissez faire under circumstances such as are assumed would be hard to defend.

As must be apparent by now, the theoretical process of adjustment to a disturbance is not only a function of demand elasticities, income elasticities, production functions, and competitive conditions, but the sequence of events is appreciably affected by bank policies and governmental action.²⁵ Even so, it is necessary to make the heroic assumptions that there are no changes in technology or changes in resources and to deal only lightly with such factors as anticipations and imperfect competition. It can be hoped only that the theoretical discussion is both sufficiently simplified and sufficiently inclusive to make it useful in predicting actual situations.

²⁴See n. 18 above.

²⁵The further complications to the adjustment process to a country in a debtor position are considered in the next chapter.

CHAPTER VIII

VERIFICATION OF THEORY

The period selected for the detailed verification of theory covers the six "natural" years beginning July, 1929, and ending June, 1935. This period, starting roughly with the decline in the demand for exports and carrying through to the advent of the Labor party, represents a sufficient lapse of time to permit the working-out of most of the mechanism of adjustment. After 1935 the recovery of export demand and the advent of the new government introduce new disturbing elements and in a sense mark off a new period for study.

Some idea of the magnitude of the initial disturbance can be derived from the fact that the value of exports, expressed in sterling, dropped from an average of approximately £50,000,000 for the five "crop" years 1924-25 to 1928-29 to £34,000,000 for the years 1930-31 to 1934-35. This change far outweighs any other influence operating during the period under study, such as climatic conditions, tariffs, technology, etc., which remained relatively stable. The Ottawa Agreement in 1932 and the decision to peg the exchange at £N.Z.125 for £stg.100 in 1933, which were the major arbitrary actions during the period, may be considered part of the adjustment mechanism, since both actions reflect the distressed conditions in New Zealand.

Special attention should be paid to the variations in long-term capital movements as a possible independent disturbing factor during the period. The general discussions of theory in chapter vii gave little attention to long-term capital movements, while in actuality New Zealand had a large foreign indebtedness at the start of the period, and annual borrowings were part of the "normal" conditions prior to the disturbance in export demand. However, because of the fact that the borrowing had continued at a fairly steady rate for the ten years prior to 1930 and that the amounts of the inflow (government foreign long-term borrowing less increases in government short-term holdings abroad) approximately equaled the annual interest payments (see Table 54), the situation was so well stabilized that long-term capital movements should not be considered a separate disturbing element. It is true, of course, that the existence of regular borrowing and of the regular interest payments affects the mechanism of adjustment in that it is

TABLE 54

NET LONG-TERM FOREIGN BORROWING COMPARED
WITH INTEREST PAID ABROAD
(£Stg.000)

Year Ending March 31	Change in Public Debt Held Abroad*	Change in Government Funds Held Abroad*	Inflow of Long-Term Capital	Interest Paid Abroad on Public Debt†
1920-21	3,100	-5,095	8,195	4,800
1921-22	9,400	-2,200	11,600	5,200
1922-23	5,500	216	5,284	5,600
1923-24	6,900	-1,582	8,482	5,900
1924-25	10,800	.....	10,800	6,200
1925-26	8,900	165	8,735	6,800
1926-27	7,400	- 161	7,561	7,100
1927-28	7,600	2,524	5,076	7,488
1928-29	11,000	4,089	6,911	7,706

*From Table 49.

†From Table 46.

less likely that changes in income will alone bring about an equilibrium in the supply of and demand for exchange. Interest payments, barring the possibility of repudiation, have the same effect on the adjustment mechanism as an import item whose income elasticity of demand is zero, while foreign borrowings are similar to an export item whose foreign demand may fall to zero. Stated in other words, the necessity of paying a fixed amount of interest and the likelihood that the net import of capital may be reduced restrict the chances that the adjustment to a decline in the value of exports will take place without relative price changes.

The foreign-debt position of New Zealand, in conjunction with the relatively small production of "domestic" commodities and the absence of any a priori evidence that the New Zealand income elasticity demand for "domestic" commodities was less than that for "international" commodities, reduces the theoretical possibility that the adjustment will take place without relative price movements over and above those involved in the disturbance itself.

A second potential "disturbing" factor that was omitted in the preceding discussion of general theory is the effect of anticipations on the progress of adjustment. The usual assumption in theory is that all individuals assume that the current situation, whatever it may be, will continue indefinitely. The justification for this assumption is the fact that any event that is generally anticipated ceases to be an eventuality and becomes an actuality—i.e., if it is generally anticipated that the price of a commodity will rise,

the price of the commodity increases immediately. It is, however, possible that broad sections of the economy may have different anticipations. Buyers and sellers may hold basically different anticipations; bankers may be more pessimistic about the future than traders; etc. This possibility becomes of particular importance in international trade, inasmuch as the groups holding different opinions may be located in different countries.¹

If, in the case of a decline in demand for a particular group of commodities, the nationals of all countries believe that the decline is temporary, there will be little or no traceable effects of the disturbance on prices. Stocks of the commodities (another factor that is usually omitted in discussions of theory) will be increased and will be liquidated over a fairly long period of time. The price of the commodity may decline slightly, and there may be an increase in the velocity of circulation of the means of payment so that nominal purchasing power is maintained. If the anticipations are correct and the decline in demand is temporary, the effects of the disturbance will be well distributed through time.

On the other hand, if there is a general anticipation that the decline in demand is permanent (an opinion that may be held from the outset, or which may grow slowly if the initial anticipation that the decline is a temporary phenomenon proves to be incorrect), the adjustment will not proceed so smoothly. Where the decline in demand affects the exports of one country, and where such changes have occurred before, as is the case under consideration, the effect of the anticipations will be a tendency for all prices and costs to move immediately toward the equilibrium situation. If there is no general agreement on the nature or the magnitude of the adjustments required, uncertainty will result, and this may, by increasing liquidity preferences, cause a decline in the velocity of circulation of the means of payment. A deflation arising from reduced velocity will in itself call for further adjustment in terms of prices and costs.

Another independent "disturbing" (i.e., nontheoretical) factor is the existence of long-term contracts or other legal barriers that prevent prompt adjustment of prices by some of the members of the economy even though their anticipations are the same as those generally held. An example of the difficulties that this causes

¹Much of the international trading in securities is due to the differences in anticipations that are held by the investors in various countries concerning future relative yields.

has already been given in the discussion of the effect of interest payments on funds borrowed abroad. Moreover, the existence of mortgages on land and buildings restricts the adjustments in the costs of agricultural products, etc. Parallel to long-term contracts are the vested interests in occupation that are encouraged by public opinion and frequently supported by governmental action. The right to work in a chosen vocation, the right to a reasonable standard of living, and the right to normal profits are some of the factors which lead individuals to expect preferential treatment in spite of admittedly difficult times. There is no need to labor the point that adjustments to long-run conditions that call for marked shifts in occupation, marked lowering of real incomes, and marked reductions in monetary incomes proceed with considerable difficulty in spite of general anticipations of such changes. It is, however, necessary to recognize that anticipations and the reluctance to meet them may demand some modification of the general theory of adjustment to a disturbance. The relatively few changes that seem necessary for the New Zealand situation will be pointed out in the succeeding discussion.

National Income as an Adjustment Factor

An over-all indication of the income effect as a factor in the mechanism of adjustment to a disturbance can be obtained by comparing the loss in New Zealand income due to the decline in value of exports with the decline in value of New Zealand imports. The monthly data for the "natural years" 1929-30 through 1931-32 are given in Table 55 and shown graphically in Figure 8. Because of the marked seasonal movement of both exports and imports, a twelve months' moving average (centered) is also shown. Even for this short period a clear picture is impossible because of (1) absence of data on stocks held by importers; (2) the difficulty of allowing for the effect of the price change in export goods on domestic consumption; and (3) the difficulty of allowing for the effect of constant interest payments which are reflected in the tendency toward increased taxation during this period. In spite of these limitations, it can be concluded that the impact of the income influence in New Zealand was immediate but that, even in the absence of the special foreign debt and borrowing situation, it would not have been adequate to bring about a complete adjustment to the disturbance. The decline in imports which began only three months after the decline in value of exports (a lag due to the time involved between the placing of orders and the receipt of

TABLE 55

NEW ZEALAND IMPORTS AND EXPORTS BY MONTHS, WITH TWELVE-MONTH
MOVING AVERAGE JULY, 1929, TO JUNE, 1932
(£N.Z.000)

Month	Imports		Exports		Average
	Actual	Twelve- Month Average	Actual	Twelve- Month Average	Exports Less Average Imports
1929:					
July	4,459	4,055	2,719	4,435	380
Aug.	4,275	4,080	2,470	4,233	153
Sept.	5,082	4,097	2,582	4,065	- 32
Oct.	4,409	4,057	2,349	3,935	- 122
Nov.	4,049	4,070	2,878	3,975	- 94
Dec.	3,984	4,069	4,561	3,945	124
1930:					
Jan.	4,190	3,948	6,377	4,000	- 52
Feb.	3,968	3,930	5,624	3,946	- 16
Mar.	4,063	3,816	5,566	3,903	- 87
Apr.	3,542	3,756	3,948	3,911	- 155
May	3,399	3,655	4,521	3,871	216
June	3,404	3,585	3,741	3,738	153
July	3,014	3,486	3,384	3,518	32
Aug.	4,055	3,356	1,891	3,325	- 31
Sept.	3,711	3,191	2,074	3,287	- 96
Oct.	3,691	3,069	2,445	3,187	118
Nov.	2,837	2,914	2,394	3,157	243
Dec.	3,147	2,781	2,969	3,072	291
1931:					
Jan.	3,012	2,684	3,740	2,975	291
Feb.	2,396	2,529	3,294	2,953	424
Mar.	2,088	2,397	5,121	2,916	519
Apr.	2,080	2,245	2,746	2,863	618
May	1,528	2,180	4,166	2,850	670
June	1,809	2,067	2,713	2,816	749
July	1,859	2,026	2,226	2,823	797
Aug.	2,188	1,989	1,623	2,767	778
Sept.	2,134	1,982	1,632	2,845	863
Oct.	1,862	1,967	1,734	3,029	1,062
Nov.	2,059	1,989	2,690	2,941	952
Dec.	1,793	2,005	3,257	2,932	927
1932:					
Jan.	2,523	2,013	3,214	2,916	903
Feb.	1,946	2,000	4,352	2,975	975
Mar.	2,011	2,015	3,583	2,966	951
Apr.	1,892	2,025	4,757	3,022	997
May	1,792	2,036	3,116	3,005	969
June	2,003	2,069	2,480	2,995	926

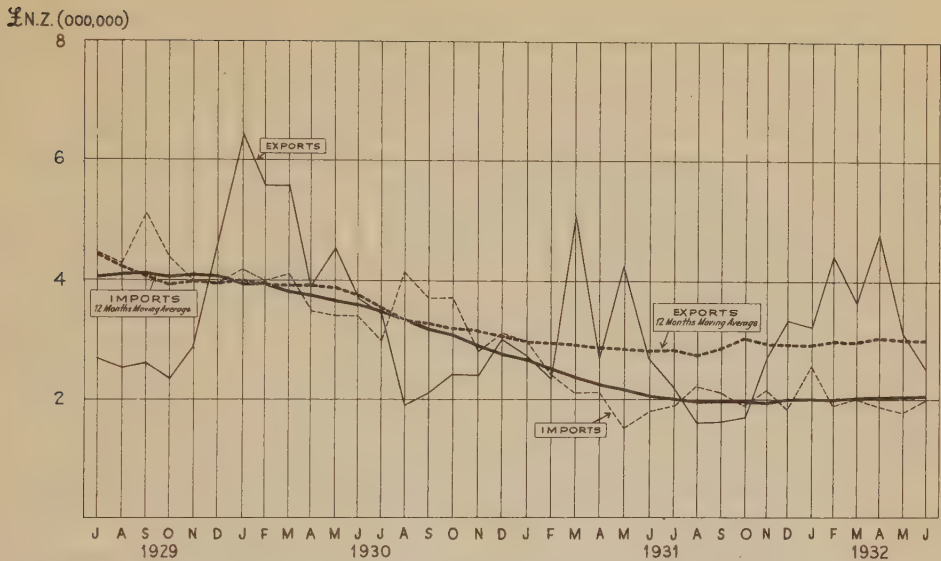


Fig 8 — New Zealand monthly imports and exports with twelve month moving average (centered) July 1929 — June 1932 (FROM TABLE 55)

the goods in New Zealand) was the result primarily of the income effect, or, rather, of the anticipation of the income effect, as insufficient time had elapsed to permit any other aspect of the mechanism to be effective. The fact, however, that imports declined at a slower rate than exports indicates that the income effect alone was insufficient to cause the adjustment even if there had been no other factors to consider. A year and a half later the decline in imports had been sufficient to adjust for the decline in the value of exports; but by this time other factors had become operative.

The lag in the decline in the value of imports behind the decline in the value of exports suggests the national-income-multiplier theory as the explanation for the sequence of events. According to the theory, a decline in the value of exports reduces the incomes in the exporting country, but, since only a part of the incomes are spent on imported goods, the reduction of imports initially will be less than the reduction in exports. If exports continue at the lower level, imports will decline by decreasing amounts through time—the rate and pattern of decline depending upon the propensity to consume domestic goods and upon the nature of the initial disturbance (change of taste, change in investment, etc.).²

²See above, p. 109-12.

An examination of the data for New Zealand indicates, however, that the assumptions of the multiplier analysis are overrigid for practical analysis. The annual data on merchandise exports and imports such as shown in Table 42 (p. 83) indicate that the immediate effect of an increase in the national income due to increased value of exports is a tendency toward increased savings or debt reduction (which is transformed into reduced velocity of the means of payment if the action of the banks is neutral). Through time, however, if the value of exports continues to be high or to be low, the initial reactions are reversed, leading to a boom or to a depression. Expressed in terms of the multiplier analysis, the New Zealand data indicate that the marginal propensity to save is a complex function of the rate of change of incomes and is not, as is usually assumed, constant through time.

In the second place, the fact that New Zealand export goods are sold through large organized markets means that the prices of these commodities are extremely sensitive. The assumption of the multiplier analysis that all prices are constant does not apply in the New Zealand case. To assume unit elasticity of demand in the short run and thus rule out the separate influence of price seems unduly restrictive.

The inadequacy of the multiplier theory in the New Zealand case is further demonstrated by the fact that the decline in imports continued to the point where a more favorable trade balance developed than existed prior to the disturbance. In theory, a less favorable balance is required as a result of the propensity to save, and in no case would the balance do more than revert to its previous status as part of the adjustment process.³

³In the case of a change in the demand for A's export goods due to a change in taste in B, equilibrium in A is reached when

$$\begin{aligned} Y_a &= \Delta X + \Delta c_a Y_a + \Delta m_b Y_b. \\ \Delta c_a Y_a &= \Delta Y_a - \Delta s_a Y_a - \Delta m_a Y_a, \\ \text{Since} \quad \Delta Y_a &= \Delta X + \Delta Y_a - \Delta s_a Y_a - \Delta m_a Y_a + m_b Y_b, \\ \text{then} \quad \Delta s_a Y_a &= (\Delta X + \Delta m_b Y_b) - \Delta m_a Y_a. \\ \text{and} \end{aligned}$$

When there is a change in the rate of investment in B, equilibrium in A is reached when

$$\begin{aligned} \Delta Y_a &= c_a Y_a + m_b Y_b, \\ \text{or (as before)} \quad \Delta Y_a &= \Delta Y_a - s_a Y_a - m_a Y_a + m_b Y_b \\ \text{and} \quad \Delta s_a Y_a &= \Delta m_b Y_b - \Delta m_a Y_a. \end{aligned}$$

In neither case can exports and imports balance in country A unless the rate of savings in A is equal to zero. A positive change in the rate of savings is associated with an export surplus, and a negative rate of savings is associated with an import surplus (cf. Fritz Machlup, International Trade and the National Income Multiplier [Philadelphia: Blakiston Co., 1943], p. 86).

As an alternative to using the multiplier theory, the lag in the decline of the value of imports behind the decline in the value of exports can be explained by the nature of the anticipations involved. The initial impact of a favorable or unfavorable export season leaves the exporters only slightly affected. Their total expenditures continue much the same as in the past, while savings deposits are built up or drawn down as the case may be. A succession of favorable or unfavorable seasons leads to the anticipation that the future season will be the same as the current season or, more likely, a better or worse season, as there is usually a trend involved. This in turn leads to increased consumption if incomes are rising and decreased consumption if incomes are falling—with a reverse change in the propensity to save. In a situation where the export income fluctuates up and down without trend, the net effect of the anticipations is to stabilize the national monetary income.

Evidence indicating the nature of the anticipations during the period 1929-34 is presented in Table 56 and is shown graphically in Figure 9. These data show that the outlook for the future was considered moderately good in 1930 in spite of the lower export prices. An increase in wool stocks indicated that higher prices

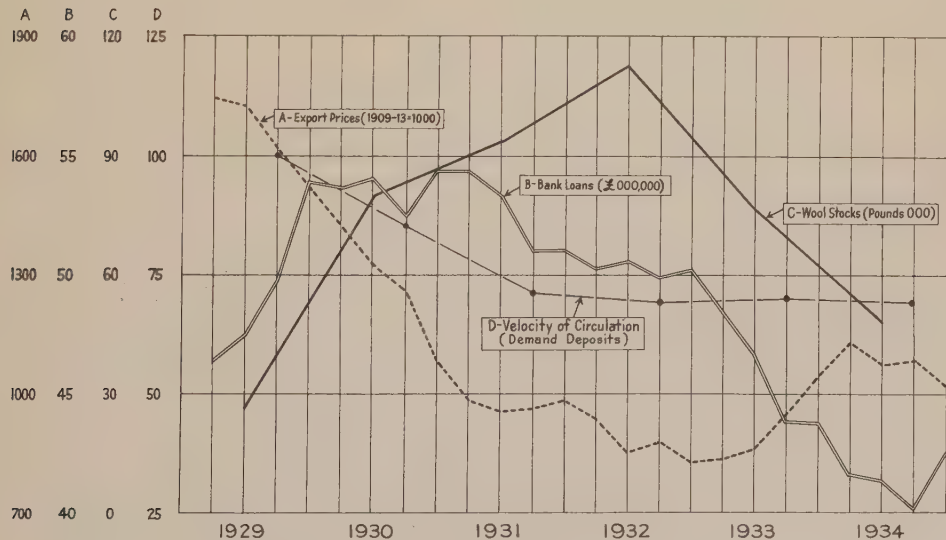


Fig. 9 — Wool stocks, bank loans, velocity of circulation and export prices in New Zealand (FROM TABLE 56)

TABLE 56

WOOL STOCKS, BANK LOANS, AND INDEX NUMBERS OF EXPORT PRICES, AND STOCK PRICES, AND ESTIMATED VELOCITY OF CIRCULATION IN NEW ZEALAND
(1929-35)

Year	Wool		Index Numbers		
	Stocks (Lb. 000 Greasy)*	Bank Loans (£N.Z.000)*	Export Prices†	Estimated Velocity of Circulation‡	Stock Prices§
1929:					
Mar. ....	.....	46,360	1746	...	1059
June	28,000	47,407	1724	...	1079
Sept. ....	.....	49,538	1617	100	1083
Dec. ....	.....	53,808	1522	...	1012
1930:					
Mar. ....	.....	53,677	1422	...	956
June	82,800	54,063	1322	...	948
Sept. ....	.....	52,507	1258	85	834
Dec. ....	.....	54,383	1082	...	809||
1931:					
Mar. ....	.....	54,332	982	...	799
June	97,000	53,396	953	...	742
Sept. ....	.....	50,934	961	71	687
Dec. ....	.....	51,017	984	...	729
1932:					
Mar. ....	.....	50,232	935	...	671
June	117,900	50,581	849	...	674
Sept. ....	.....	49,975	877	69	764
Dec. ....	.....	50,234	822	...	683
1933:					
Mar. ....	.....	48,500	836	...	753
June	78,600	46,757	858	...	821
Sept. ....	.....	43,811	948	70	885
Dec. ....	.....	43,752	1046	...	900
1934:					
Mar. ....	.....	41,576	1125	...	921
June	49,800	41,344	1076	...	936
Sept. ....	.....	40,177	1083	69	985
Dec. ....	.....	42,461	1015	...	1017

*Source: New Zealand Official Year Books.

†Source: New Zealand Monthly Abstract of Statistics. (1909-13 = 1000.)

‡See Table 57.

§Average prices of common stock of forty-nine New Zealand companies on the last day in the month. (January-December, 1926 = 1000.)

[#]Interpolated from November, 1930, and January, 1931, indices.

were expected in the near future. Foreign borrowings continued at a high level, and there was only a slight decrease in the velocity of circulation of money.⁴ Secondary bank credit leveled off,

⁴The annual velocity of circulation as calculated in Table 57 is not to be confused with the usual index of velocity calculated by dividing bank debits by

TABLE 57*

ESTIMATE OF INDEX OF VELOCITY OF CIRCULATION IN NEW ZEALAND
(Annual Data)

Year Ending March 31	Average Deposits Trading Banks (Excluding Government Deposits)+ (£N.Z.000) (1)	Total Bank Debits (Excluding Government Debits) (£N.Z.000,000) (2)	Average Deposits Post Office Savings Bank (£N.Z.000) (3)	Total Withdrawals Post Office Savings Bank# (000) (4)	Estimated Velocity of Circulation (2) + (4) ÷ (1) + (3) (5)	Index of Velocity of Circulation (1929-30 =100) (6)
1928-29	53,138	824	48,202	28,112	8.402	93
1929-30	54,745	887	49,035	29,576	9.009	100
1930-31	52,231	723	48,553	28,063	7.654	85
1931-32	51,047	575	45,462	25,488	6.427	71
1932-33	51,514	540	42,642	19,636	6.191	69
1933-34	58,075	596	43,450	17,818	6.300	70
1934-35	62,335	660	47,147	20,947	6.204	69

*Source: New Zealand Official Year Books.

†Based on quarterly averages.

#Based on annual data.

showing some uncertainty on the part of either borrowers and lenders (or both) concerning the outlook for the future. Most of the changes, however, are consistent with anticipations of a favorable future.⁵ It should be noted, however, that several of these developments are contrary to the expectations of the multiplier analysis. For example, the increase in wool stocks and the increase in bank loans show an increase in domestic investment, whereas in the multiplier analysis home investment is assumed to be constant.

By the middle of 1932 anticipations concerning the future were pessimistic in tone. Wool stocks increased very little in spite of the low price level, foreign borrowings were on a low level, and the velocity of circulation had fallen sharply.⁶ Bank credit was tight,

demand deposits. It will be noticed that savings accounts are included as "money" in Table 57, owing to the probability that individuals transferred funds to interest-bearing accounts rather than allowing unneeded balance to remain in demand deposit. Since Post Office Savings Accounts are alternative to trading-bank interest-bearing accounts (see Table 7), it is necessary to include these to prevent distortion of the figures calculated. The annual figures are probably a more accurate index of the changes in anticipations than are quarterly figures, based only on trading-bank deposits and debits.

⁵Unfortunately, data on stocks held by importers are not available. It is therefore impossible to make any comparison between the anticipations held by buyers (importers) and sellers (exporters).

⁶Note also that an increase in the velocity of circulation is indicated in the multiplier analysis as a result of the decreased rate of savings and the fact that foreign balances are expected to fall more rapidly than national income. However, the occurrence of an absolute decrease in savings (shown in Table 57) shows a propensity to dissave, which is contrary to the basic assumption of the stability of the propensities in the multiplier analysis.

and borrowings were slowly being reduced. It is impossible to prove that the pessimistic viewpoint was generally held, as the pessimism of the lenders (the trading banks and the stock and station agencies) could account for the limited increase in wool stocks and the reduction of bank loans and might have overbalanced the optimism of the borrowers (producers and traders). However, the increased rate of savings and the falling velocity of circulation indicate that the pessimistic outlook was fairly generally held. The continuation of a low velocity of circulation and a low level of bank borrowing in the face of slowly rising export values in 1934 is of particular interest.

It appears from this brief analysis that the behavior of the New Zealand economy in the short run reflects the stability of anticipations rather than the stability of propensities to save, import, and purchase home-market goods. It may well be, however, that anticipations are of less importance in other economies where the prices of the more important articles of trade are less subject to annual variation than has been the case in New Zealand.

As was pointed out in the discussion in chapter vii (pp. 118-19), a fall in export demand would have conflicting influences on the domestic consumption of export goods. The falling national income would tend to reduce the domestic consumption of export goods, while their lower price relative to other goods would tend to increase consumption. The New Zealand data for individual export commodities throw some light on the effects of these two factors. Although the figures reported are crude because of the absence of exact data on stocks, they indicate an interesting uniformity in behavior of individual products. Domestic consumption of export goods is calculated as the difference between production and export, except in the case of wool, where the domestic purchases are recorded directly. In Table 58 are shown estimates based on annual data for the period 1929 through 1935. In spite of the obvious errors in the estimates, it is apparent that the influence of price reductions, the major element tending toward increasing domestic consumption, was greater than the influence of income reductions and other elements tending toward decreasing consumption.

Action Taken by the Banks

As has already been pointed out, the decline in value of exports in the latter part of 1929 and in 1930 was not met by an immediate and corresponding decrease in imports. As a result, the banks were called on by traders and individuals to supply more

TABLE 58*

APPROXIMATE NEW ZEALAND CONSUMPTION OF
SELECTED EXPORT COMMODITIES

Year Ending June 30	Butter (Cwt.000)	Lamb (Carcasses 000)	Mutton (Carcasses 000)	Beef (Carcasses 000)	Wool (Lb.000,000)
1928-29 ...	421	327	1,588	 ⁺	6.6
1929-30 ...	469	367	2,021	1,555	6.1
1930-31 ...	536	377	1,682	1,438	6.2
1931-32 ...	510	1,253	2,890	1,452	7.0
1932-33 ...	544	797	2,002	1,569	6.6
1933-34 ...	412	106	1,564	1,762	6.0
1934-35 ...	581	855	1,841	1,986	7.1

*Source: New Zealand Official Year Books.

+Veal as well as beef is included in the 1928-29 figure.

sterling exchange than was received. At the same time there was an urgent need for short-term funds in England, so that the New Zealand government not only refrained from borrowing in London but undertook to retire a large share of its outstanding short-term indebtedness there.⁷ To summarize the situation briefly, during the year 1930, when the value of exports barely equaled actual imports, the government retired two and a half million pounds sterling debt abroad, interest payments abroad totaled nine and a half millions, and tourist expenditures abroad were about a million pounds in excess of the corresponding receipts. The thirteen millions of sterling thus required was met by drawing down government balances held abroad by six millions and by reducing sterling assets held by the banks by seven millions. During 1931 the value of exports was somewhat greater than imports, and the government borrowed approximately enough to provide for interest in foreign markets. Bank assets abroad, however, remained at a low level, and late in 1931 (immediately after England had left the gold standard) the New Zealand government was informed by the British government that short-term borrowing in London must stop and that four million pounds in British treasury bills was to be repaid.⁸ As a result, an exchange pool was formed by licensing exporters and requiring that all funds be paid to an authorized bank. This arrangement was made to insure the existence of sufficient funds to pay interest on the New Zealand government debt. During this period the banks

⁷Monetary Committee Evidence, *op. cit.*, p. 41.

⁸D. B. Copeland, "New Zealand Economic Difficulties," *Economic Journal*, XLII (September, 1932), 371.

also transmitted a million pounds sterling of gold abroad to build up their sterling balances. As it turned out, there was no need for concern, as export values recovered slightly while imports continued to decrease, and the government was subsequently able to borrow abroad to provide for interest payments. From June, 1932, when the exchange pool was discontinued, until 1938 the supply of exchange was considerably greater than the requirements.

According to theory, the initial impact of the fall in value of exports should have driven the exchange rates to the gold point, and the drain of gold from the banks should have led to a reduction in advances. New Zealand currency did depreciate in terms of sterling in 1930, and it depreciated to the extent that there was an initial export of coin. This situation did not continue long, as the export of coin was prohibited in July, 1931, and New Zealand shifted from semimetallic to a pure paper currency. Contrary to theory, there was, during the latter part of 1929, an initial expansion of bank currency, due largely to the "excess" holding of sterling which had been accumulated through conservative banking practices during the prosperous years 1928 and 1929. An analysis of quarterly figures (Table 59 and Fig. 10) shows that the initial secondary expansion of bank currency was followed by a secondary contraction of loans in 1931; but it is difficult to determine whether this contraction was due to a stricter lending policy of the banks caused by their poorer reserve position or whether it was due to loss of confidence on the part of the borrowers. The evidence available indicates that the contraction in 1931 was due to pressure applied by the banks, but the decline during 1933 was probably due to lack of confidence. For example, the Annual Report of the Bank of New Zealand, Ltd., for 1931 carries the statement: "Prudence in face of the plight of the country forced us to restrict advances; indeed, the marked shrinkage in the free deposits of all the banks would alone have dictated this course."⁹ In 1934, however, the Associated Banks made the following statement before the Monetary Committee: "As to whether there is any unsatisfied demand for advances for business, it is a simple fact that there is no bank limitation. In fact, the banks are very willing to extend their advance business, and the reduction in total overdrafts is not in accordance with their own wishes."¹⁰ These statements

⁹Australasian Banking and Insurance Record, July 21, 1931, p. 584.

¹⁰Monetary Committee Evidence, *op. cit.*, p. 28.

are corroborated by the fact that overdraft rates were advanced from $6\frac{1}{2}$ per cent to 7 per cent in February, 1930, but were reduced to $6\frac{1}{2}$ per cent in November, 1931, and were further reduced in September, 1932, and May, 1933, to 6 per cent and then to 5 per cent (see Table 61).

Figure 11 shows the relation between the changes in the reserve ratio of the banks (Table 61), exchange rates (Table 9), and

TABLE 59*

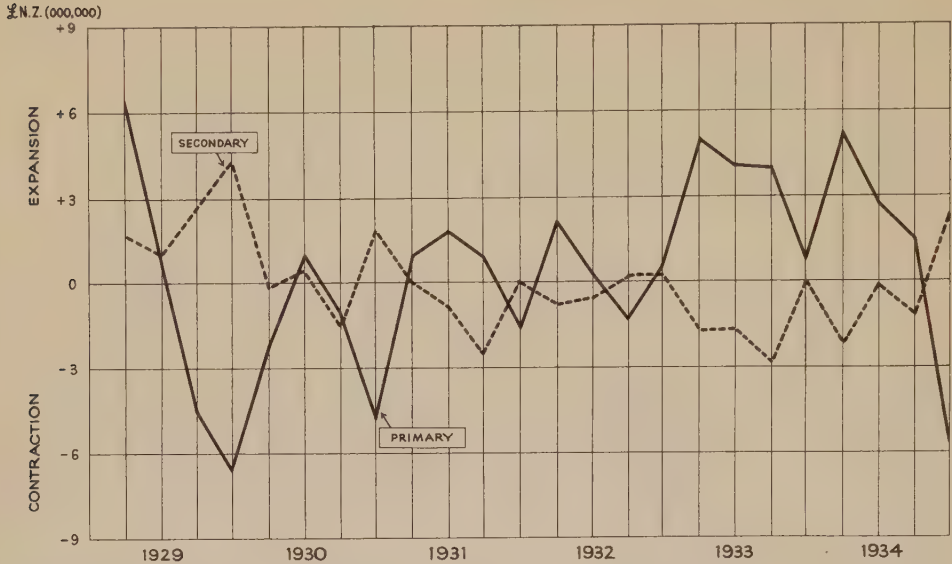
PRIMARY AND SECONDARY EXPANSION OF NEW ZEALAND BANK CURRENCY
(£N.Z.000)

At End of Month	Change in Total Deposits† (Increase = Primary + Secondary Expansion) (1)	Change in Advances‡ (Increase = Second- ary Expansion) (2)	Increase = Primary Expansion (1) - (2)
<u>1929:</u>			
Mar.	4,475	1,741	6,216
June	1,636	1,047	589
Sept.	-2,479	2,131	-4,610
Dec.	-2,353	4,270	-6,623
<u>1930:</u>			
Mar.	-2,545	- 231	-2,223
June	1,378	386	992
Sept.	-2,696	-1,556	-1,140
Dec.	-2,918	1,876	-4,794
<u>1931:</u>			
Mar.	908	- 51	959
June	855	- 936	1,791
Sept.	-1,530	-2,462	932
Dec.	-1,489	83	-1,572
<u>1932:</u>			
Mar.	1,360	- 785	2,145
June	676	- 606	1,282
Sept.	-1,875	349	-2,224
Dec.	- 220	258	478
<u>1933:</u>			
Mar.	3,249	-1,734	4,983
June	2,311	-1,743	4,054
Sept.	1,085	-2,947	4,032
Dec.	- 722	58	780
<u>1934:</u>			
Mar.	3,023	-2,176	5,199
June	2,430	- 231	2,661
Sept.	352	-1,167	1,519
Dec.	-3,560	2,284	-5,844

*Source: New Zealand Official Year Books.

†Bank notes are excluded primarily because they did not change during this period and, second, because of the confusion caused by substituting Reserve Bank notes for trading-bank notes in 1934.

‡Advances include bank notes and bills discounted.



overdraft rates (Table 60). From this graph it can be seen that the action taken by the banks falls into three general patterns: a policy of cautious liberalism from March, 1929, to February, 1930; a policy of conservatism between February, 1930, and November, 1931; and a policy of liberal lending from November, 1931, onward. In order to understand the early action of the banks, it is necessary to go back to the 1921 depression. At that time imports rose to unheard-of heights as a result of an unexpected series of deliveries on orders that had been placed immediately after the war. Export values were falling, and the earmarks of a sharp depression were clear to all. The banks adopted a policy of liberal lending to importers

TABLE 60

Date Inaugurated	Minimum Overdraft Rate of Trading Banks (Per Cent)
July, 1928	6½
Feb., 1930	7
Nov., 1931	6½
Sept., 1932	6
May, 1933	5
Dec., 1934	4½

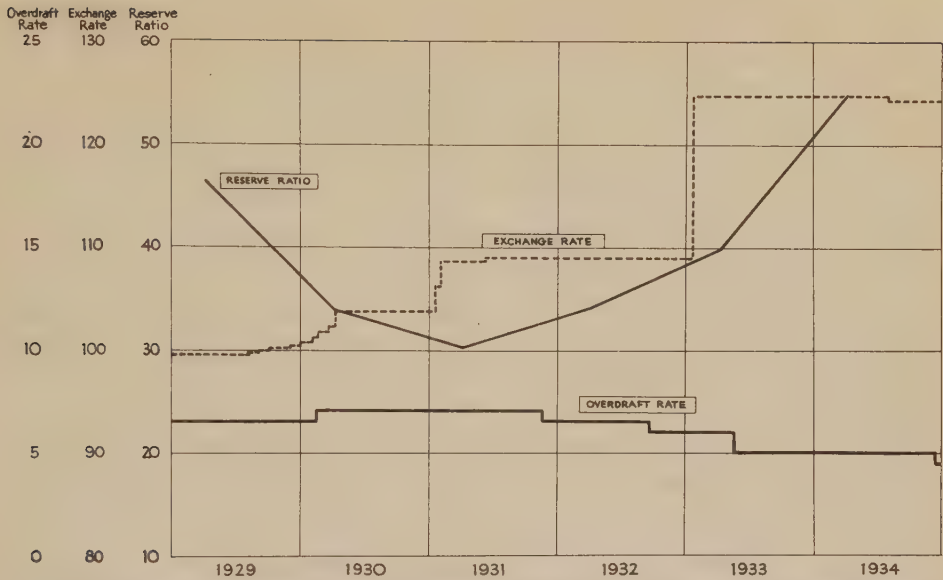


Fig.11 - Exchange rates and overdraft rates in relation to the reserve ratio of New Zealand trading banks (FROM TABLES 9, 60 AND 61)

but advanced the discount rate and raised exchange rate several points. This policy of liberal lending was maintained even though London assets fell sharply, lowering the reserve position of the trading banks. There is no question but that this policy eased the immediate burden of adjustment on the part of New Zealanders, and the part played by the banks deservedly received credit. Hence, at the onset

TABLE 61

APPROXIMATE RESERVE RATIO OF NEW ZEALAND TRADING BANKS

Year at March 31	Coin, Bullion, and Securities in New Zealand (£N.Z.000)*	Estimated Assets in London (£N.Z.000)+	Total Reserves (£N.Z.000)	Total Liabilities (£N.Z.000)*	Reserve Ratio
1929	11,950	18,632	30,582	66,056	46.30
1930	12,145	9,923	22,068	64,983	33.96
1931	11,440	7,110	18,550	61,216	30.30
1932	12,170	8,839	21,009	61,517	34.15
1933	14,157	11,047	25,204	62,794	39.82
1934	28,084	10,138	38,222	69,780	54.78

*Average for the quarter as reported in the New Zealand Gazette, except for securities, which are estimated from annual data.

+From Table 12.

of the 1930 depression, the banks followed the practice established in 1921. Loans were extended as needed in spite of a falling reserve ratio, but exchange rates were advanced. The discount rate was not raised, presumably because it was already at a fairly high level, not having been reduced much from the rate established to meet the 1927 disturbance. The exchange rate was raised more rapidly than in 1921, but, as explained before, this difference was due to the fact that Australia was more severely influenced by the 1930 recession than had been the case in 1921.

That the 1930 disturbance was of considerably greater magnitude than the 1921 incident apparently occurred to the banks in February, 1930. A policy of conservative lending was then introduced, as is evidenced by the increase in the discount rate to 7 per cent and by the fact that total loans decreased. The reserve ratio of the banks had fallen from a level of 45 per cent to 30 per cent, and the Australian situation was even more discouraging. New Zealand exchange rates were held at £N.Z.110 for £stg.100 in spite of the fact that Australian rates continued to depreciate. The evidence indicates that the New Zealand banks had decided to hold the status quo and permit "natural" forces to run their course rather than join the Australian policy of meeting the situation through a depreciation of the local currency.

By the end of 1932 the banking situation had begun to recover in terms of the reserve ratio. London assets were increasing while New Zealand loans had somewhat reduced. Since the critical situation in London had been eased by the fact that England went off the gold standard, the time must have seemed right to relax credit somewhat. The major evidence is the fact that the discount rate was reduced and that advances began to increase. Ordinarily, the exchange rate would have been reduced, but by this time the Australian policy had been established and there was growing pressure to depreciate the New Zealand currency, as is witnessed by the fact that the government fixed the exchange rate at £N.Z.125 for £stg.100 in spite of the opposition of the trading banks. The credit policy of the banks was no longer an important factor, however, for by the end of 1931 the downward spiral of deflation had already begun in New Zealand.

The Behavior of Prices and Wage Rates

According to our theoretical discussion, the fall in demand for export commodities should not only cause the price of export goods to fall but should lead, through the resultant outflow of funds, to

a fall in the price of "domestic" goods. The price of imported goods should remain unchanged. It should be noted here, however, that these changes in price are relative, i.e., that the price of imported goods might rise in absolute terms while the prices of export and domestic goods remained unchanged. This latter occurrence might take place if there were a marked rising trend in world prices, or if we were dealing with a country with a paper currency where a depreciation of the exchange would tend to prevent a fall in export prices (expressed in terms of the local currency) while causing a rise in the local prices of imported commodities. Finally, a fall in export demand might not affect the price of "domestic" commodities (assuming now a currency tied to gold) if the nationals of the exporting country, through the action of income elasticities of demand, increased the proportion of the national income spent on domestic goods to such a degree that, in spite of a lower total national monetary income, an increased absolute amount of money would be devoted to these goods. An increased absolute amount of money would be necessary in order to absorb the factors released from the export industries due to the fall in their prices.

In New Zealand the effects of successive depreciations of the exchange rate were such as to keep import prices, as expressed in New Zealand currency, practically constant during the period under study. Export prices, however, fell decidedly even in terms of the local currency, thus giving a particularly good demonstration of the behavior of "domestic" prices as postulated by the theoretical case outlined on the basis of a simple gold currency. House rents have been selected to indicate the general movement of domestic prices, since they are the only series reported with any degree of accuracy and frequency that is free from the direct influence of import or export prices.¹¹ The general movement of domestic prices is confirmed by rough estimates of brick and cement wholesale prices, which are obtained by dividing value of output by quantity produced as reported in the statistics on factory production. The evidence, partial though it is, indicates definitely that domestic prices fell in relation to import prices, although they apparently did not fall so sharply as export prices. The data are presented in Tables 62 and 63.

¹¹Even here the figures are influenced by a reduction in rents which was forced in April, 1932, by the National Expenditures Adjustment Act. It should be noted, however, that the trend preceding and following the legislation is downward.

TABLE 62*

MONTHLY INDEX NUMBERS FOR EXPORT PRICES, IMPORT
PRICES, AND HOUSE RENTS

Date	Export Prices (1909-13 = 1,000)	Import Prices (1909-13 = 1,000)	House Rents (1926-30 = 1,000)	Date	Export Prices (1909-13 = 1,000)	Import Prices (1909-13 = 1,000)	House Rents (1926-30 = 1,000)
<u>1929:</u>				<u>1932:</u>			
Jan. ..	1819	1 323		Jan. ..	914	1 295	
Feb. ..	1816	1 326	1 019	Feb. ..	916	1 297	904
Mar. ..	1746	1 334		Mar. ..	935	1 297	
Apr. ..	1752	1 333		Apr. ..	926	1 289	
May ..	1740	1 336	1 021	May ..	887	1 291	816
June ..	1724	1 336		June ..	849	1 287	
July ..	1737	1 336		July ..	837	1 294	
Aug. ..	1775	1 331	1 024	Aug. ..	873	1 289	816
Sept. ..	1617	1 328		Sept. ..	877	1 283	
Oct. ..	1640	1 327		Oct. ..	900	1 272	
Nov. ..	1525	1 327	1 020	Nov. ..	861	1 259	795
Dec. ..	1522	1 330		Dec. ..	822	1 282	
<u>1930:</u>				<u>1933:</u>			
Jan. ..	1488	1 331		Jan. ..	877	1 295	
Feb. ..	1423	1 325	1 015	Feb. ..	881	1 395	774
Mar. ..	1422	1 333		Mar. ..	836	1 391	
Apr. ..	1322	1 338		Apr. ..	832	1 388	
May ..	1408	1 335	1 012	May ..	808	1 385	768
June ..	1322	1 318		June ..	858	1 377	
July ..	1408	1 308		July ..	897	1 371	
Aug. ..	1390	1 361	1 008	Aug. ..	944	1 377	762
Sept. ..	1258	1 349		Sept. ..	948	1 368	
Oct. ..	1221	1 340		Oct. ..	1001	1 355	
Nov. ..	1146	1 335	988	Nov. ..	1021	1 344	761
Dec. ..	1 082	1 311		Dec. ..	1 046	1 349	
<u>1931:</u>				<u>1934:</u>			
Jan. ..	1 033	1 312		Jan. ..	1 103	1 349	
Feb. ..	992	1 304	987	Feb. ..	1 120	1 351	759
Mar. ..	982	1 307		Mar. ..	1 125	1 355	
Apr. ..	960	1 309		Apr. ..	1 070	1 346	
May ..	966	1 298	964	May ..	1 075	1 343	758
June ..	953	1 302		June ..	1 076	1 333	
July ..	960	1 295		July ..	1 106	1 327	
Aug. ..	975	1 315	940	Aug. ..	1 077	1 334	756
Sept. ..	961	1 311		Sept. ..	1 083	1 333	
Oct. ..	984	1 301		Oct. ..	1 042	1 339	
Nov. ..	961	1 295	940	Nov. ..	968	1 345	756
Dec. ..	984	1 296		Dec. ..	1 015	1 343	

*Source: New Zealand Monthly Abstract of Statistics.

Several factors should be noted in making a detailed comparison of the movements of the various index numbers. The index of export prices is the most comprehensive and is based on the declared value of the exports f.o.b. New Zealand ports. The weight assigned each

TABLE 63*

AVERAGE PRICE OF BRICK MANUFACTURED IN NEW ZEALAND

Year Ending March 31	Common Brick Produced (000)	Fire Brick Produced (000)	Total Brick Produced (000)	Value of Bricks Produced (£N.Z.)
1929-30	53,279	1,264	54,543	270,454
1930-31	36,613	1,027	37,640	221,177
1931-32	10,955	528	11,483	62,085
1932-33	7,705	507	8,212	47,429
1933-34	11,194	462	11,656	63,465
1934-35	21,329	748	22,077	104,878

*Source: New Zealand Official Year Books.

item is the average quantity exported during the five previous export seasons. While the system of weighting prevents the monthly index from showing a "seasonal" movement, the base changes in July of each year and hence affects a June-July comparison. The use of declared values introduces a minor error, as some export merchandise is sold on consignment with the exact realization not known at the time of shipment. Consequently, the New Zealand export-price index tends to lag slightly behind the true realized values in the market.

The index of prices of imported commodities is based on wholesale prices in New Zealand as reported by selected concerns. It is weighted according to the quantities sold in the base period 1909-13 and covers less than 40 per cent of total imports.¹² Since it probably understates both upward and downward movements of prices, and since there is also a lag between the wholesale prices and retail prices, the index does not reflect the actual variations in prices of imported goods as they are faced by New Zealanders in making purchases.

The index of rents is based on figures supplied by a sample of householders and real estate agents in twenty-five towns. Three grades of houses are recognized, but the figures represent existing rentals and, due to leases, the index lags behind the changes that would be reflected in new contracts. A simple average of the twenty-five towns is taken, and no effort is made to weight the sample according to the populations affected. It is believed that the net effect of these factors is to understate the immediate changes that occur.¹³

In spite of the limitations in the various price indices,

¹²E. P. Neale, Guide to New Zealand Official Statistics (Auckland: Whitcombe & Tombs, Ltd., 1938), p. 35.

¹³Ibid., pp. 68-75.

particularly those which reflect the movement of "domestic" prices, the magnitudes of the movements are such as to verify the type of price movement postulated by theory.

Closely associated with the movement of domestic prices is the theoretical conclusion that the price of domestic factors of production will decline (in absolute terms if the currency is tied to gold, in relation to the price of imported commodities if the exchanges are free to vary). Prior to 1932 a substantial proportion of the wage rates were determined by awards issued by the Arbitration Court, reflecting essentially an abstract concept of a "reasonable" standard of living tempered by changes in the cost of living. Since award rates were issued only when requested by employers or workers, they were not available to certain groups, notably agricultural workers and rail-road employees. In 1932 the Industrial Conciliation and Arbitration Amendment Act provided that awards were to be issued only where there was agreement to a rate by all parties concerned, with the result that many previously existing awards were allowed to lapse. The full compulsory powers of the Court were not restored until 1936.¹⁴

TABLE 64*

QUARTERLY INDEX OF NEW ZEALAND HOURLY WAGE RATES, 1929-34
(Adult Male, Base 1926-30 = 1000)

Year	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
1929	1652	1654	1656	1654
1930	1662	1662	1662	1660
1931	1654	1469†	1469	1471
1932	1438	1418‡	1397	1374
1933	1368	1366	1366	1365
1934	1360	1358	1365	1390

*Source: New Zealand Monthly Abstract of Statistics.

†A 10 per cent reduction in award rates ordered by the Arbitration Court, May 29, 1931.

‡Interpolated.

Other than a 10 per cent reduction in award rates ordered in May, 1931, there was no governmental or judicial influence on wages during the period under consideration. The downward movement shown in Table 64, therefore, represents "natural" forces and serves as a verification of international trade theory. The downward movement of wages also lends support to the statement that domestic prices fell, as wages are an important element in the cost of locally

¹⁴For a more complete discussion of the amendment to the Arbitration Act see below, p. 160.

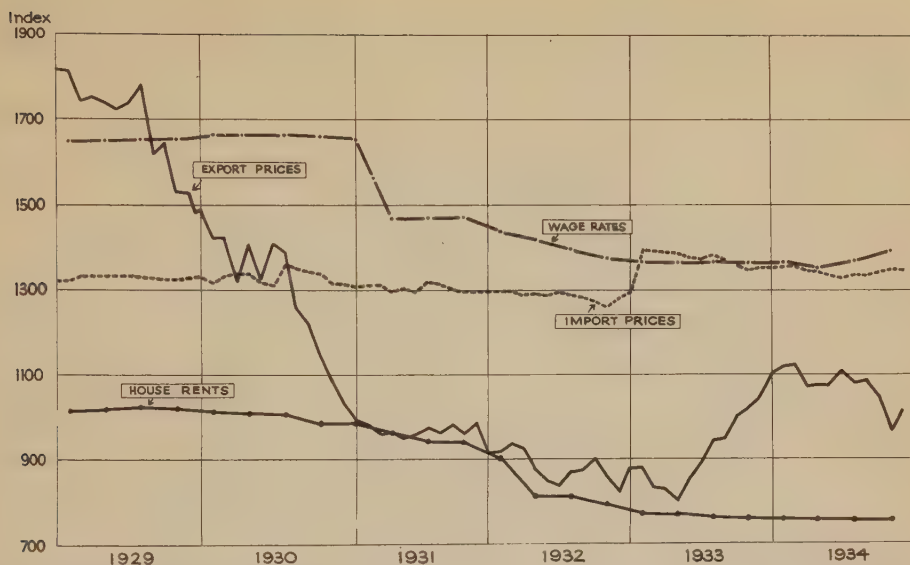


Fig.12 — Export prices, import prices, house rents and wage rates in New Zealand, 1929-1934 (FROM TABLES 62 AND 64)

produced goods. The data on prices and wage rates are shown graphically in Figure 12.

Allocation of Resources

According to our theoretical analysis, the marked fall in the foreign demand for export commodities should have led to a reduction in the proportion of resources devoted to the production of these commodities, while the tendency for the price and cost of production of domestic commodities to fall relative to those of imported commodities should have led to an increase in the resources used in the production of domestic goods. In New Zealand the major exports being agricultural and pastoral products, and home-market products mainly services or manufactured articles, we should expect on theoretical grounds to see a decrease in the proportion of population engaged in farming and an increase in the proportion engaged in manufacturing.

Direct evidence on the number of persons on farms and the number engaged in manufacture is not available, and what statistics can be had are not complete. The indications, however, are that the number of persons on farms increased or remained stable, while there was considerable unemployment in manufacturing. This situation is

reflected in the figures on the distribution of population between rural and urban areas (Table 65), which show that there was a marked slackening in the shift from rural to urban residence during this period.

TABLE 65*
PERCENTAGES OF URBAN AND RURAL
POPULATIONS IN NEW ZEALAND

Year	Urban	Rural
1911	50.73	49.27
1916	54.15	45.85
1921	56.90	43.10
1926	59.38	40.62
1931 [†]		
1936	59.66	40.34

*Source: New Zealand Official Year Books.

[†]No census taken in 1931.

Partial evidence that there was an increase in the resources engaged in export production can be obtained from the increase in the volume of agricultural and pastoral production. A rough index of volume of production obtained by dividing the index of total value of farm production by the price index of farm products gives the figures shown in Table 66.¹⁵ In addition to the difficulties involved

TABLE 66

Production Year	Index of Volume of Farm Production
1928-29	100
1929-30	102
1930-31	106
1931-32	110
1932-33	121
1933-34	124
1934-35	120

in the collection of the basic data and the problem of weighting, the year-to-year fluctuations in the index of farm production are subject to two other influences. In the first place, the data on stocks are incomplete, and consequently the data on production are understated when stocks are being accumulated and are overstated when stocks are being liquidated.¹⁶ The marked rise in the index

¹⁵Neale, op. cit., p. 33.

¹⁶Assume, for example, that the true situation is beginning stocks 100,000, sales 500,000, ending stocks 200,000 or production 600,000. With incomplete data on stocks beginning stocks might be reported 50,000, sales 500,000, and ending stocks 100,000—giving an apparent production of 550,000.

in 1932-33 is in a large measure to be attributed to this cause. Second, the fact that meat prices fell more rapidly than the prices of butter and cheese, and that wool declined in price to an even greater extent than meat (Table 67), caused New Zealand farmers to

TABLE 67*
EXPORT PRICE INDICES FOR DAIRY PRODUCE, MEAT, AND WOOL
(1928-29 = 1,000)

Year Ending June 30	Dairy Produce	Meat	Wool
1928-29	1000	1000	1000
1929-30	895	965	630
1930-31	687	774	408
1931-32	650	649	360
1932-33	572	596	349
1933-34	540	772	685
1934-35	538	860	458

*Source: New Zealand Official Year Books.

increase their holdings of milch cows while decreasing the holdings of sheep (Table 68). In other words, the slaughter of sheep increased materially while the slaughter of cattle remained about constant

TABLE 68*
NUMBER OF SHEEP AND CATTLE IN NEW ZEALAND, 1929-34

Year	Sheep (at April 30) (000)	Cattle (at January 31) (000)
1929	29,051	3,446
1930	30,841	3,766
1931	29,793	4,081
1932	28,692	4,072
1933	27,756	4,192
1934	28,649	4,301

*Source: New Zealand Official Year Books.

(Table 69). At the same time, the quantity of wool clipped (at least initially) remained constant, while the quantity of butter and cheese produced increased materially (Table 70). The net result of these operations is an apparent increase in agricultural production during the years of declining prices. To some extent these errors are offsetting; and, in view of the major change in volume of output, it is quite clear that resources devoted to farming remained constant or increased during the period under consideration.

Further evidence of the allocation of resources may be found

TABLE 69*

SLAUGHTER OF SHEEP AND CATTLE IN NEW ZEALAND, 1929-34

Year Ending March 31	Mutton (000)	Lamb (000)	Total Sheep (000)	Beef (000)	Veal (000)	Total Cattle (000)
1929-30	3,992	6,652	10,644	367	444	811
1930-31	4,263	8,198	12,461	335	559	894
1931-32	5,234	8,828	14,062	330	608	938
1932-33	4,356	9,854	14,210	405	614	919
1933-34	3,556	8,825	12,381	488	954	1,442

*Source: New Zealand Official Year Books.

in the figures on factory production which show average employment by industry. It is possible to identify the major industries as being engaged in one of three classes of work—the processing of export commodities, such as the meat-freezing and bacon-curing establishments; the production of "home-market" commodities, such as beer, flour, etc.; and the production of items that compete directly with imported items, such as boots and shoes, woollens, etc. The basis for classifying the industries is whether the product is listed as an important export, as an important import, or is not listed in either classification. A sharp distinction between home-market products and import products is, of course, difficult. Allowing, however, for some error, the data as presented in Table 71 bear out the fact that the production of export items increased in volume during the period under study and that the increase was about the same as in the production of items competing with imports. The production of goods competitive with imports followed approximately the same pattern shown by the export industries, declining slightly in the early years of the depression and recovering by 1935 to a

TABLE 70*

PRODUCTION OF WOOL, BUTTER, AND CHEESE IN
NEW ZEALAND 1928-29 THROUGH 1934-35

Year Ending March 31	Butter† (Cwt.)	Cheese (Cwt.)	Wool (Lb.000,000)
1928-29	2,288	1,782	262.7
1929-30	2,587	1,781	261.7
1930-31	2,342	1,857	258.6
1931-32	2,479	1,781	269.5
1932-33	3,374	2,071	277.1
1933-34	3,238	2,136	289.6
1934-35	3,157	1,914	265.0

*Source: New Zealand Official Year Books.

†Includes whey butter as well as creamery butter.

TABLE 71*

ANALYSIS OF TRENDS IN VOLUME OF INDUSTRIAL PRODUCTION
IN NEW ZEALAND, 1930-35

Class of Industry	Index of Volume of Production					
	1930	1931	1932	1933	1934	1935
Export Industries:						
Meat freezing and preserving	6,139	5,891	6,040	6,365	7,653	7,594
Butter, cheese, and condensed milk	4,028	3,984	3,791	3,937	4,146	3,787
Ham and bacon curing	396	380	384	398	427	395
Tanning, wool scouring, and fellmongering	839	749	683	809	880	965
Total	11,402	11,004	10,898	11,509	13,106	12,741
Index	1,000	965	956	1,009	1,149	1,117
Import Competitive Industries:						
Clothing factories	7,852	7,680	7,155	7,616	7,877	9,394
Hosiery factories	729	736	714	757	913	998
Boot and shoe factories	2,307	2,364	2,183	2,277	2,429	2,541
Woolen mills	2,478	2,237	2,216	2,349	2,466	2,532
Biscuit and confectionery	2,719	2,716	2,523	2,512	2,738	2,591
Total	16,085	15,733	14,791	15,511	16,423	18,056
Index	1,000	978	920	964	1,021	1,123
Home-Market Industries:						
Lime and cement	928	912	794	688	631	704
Brick, tile, and pottery	1,156	946	563	405	467	618
Tinware and sheet metal	1,494	1,448	1,229	1,262	1,282	1,452
Printing and publishing	8,255	8,192	7,610	7,453	7,744	8,079
Furniture	2,774	2,378	1,779	1,584	1,576	1,874
Grain mills	731	692	682	695	747	756
Breweries and malt houses	987	952	870	810	807	847
Total	16,325	15,520	13,527	12,897	13,254	14,330
Index	1,000	951	829	790	812	878

*Source: New Zealand Official Year Books.

level approximately 12 per cent higher than in 1930. In so far as the data concerning home-market industries relate to building supplies and durable goods, they cannot be compared with the shorter-lived products produced by the other industries shown in the table. However, the figures on printing and publishing, grain milling, and brewing indicate that home-market goods fared less well than import competitive products.

In the interpretation of Table 71 it must also be recognized that the employment data are far from perfect as a measure of the changing situation. For example changes in efficiency (both in terms of managerial activity and the man-hour unit itself) and the increase or decrease in the range of goods produced in the industry affect employment independently of changes in output. Alternative units of measurement, such as physical output, are subject to criticism in that, even if the data were available, it is extremely difficult to

find a unit of measurement of output that is constant through the period under consideration because of the changing proportions in the variety of goods produced by the typical firm. The measurement is further subject to the limitation that the quality of the individual product is likely to change through time (in particular, quality is likely to be lowered in times of depression thus tending to understate the "true" change in volume of production). This would not be so much of a difficulty if the variations in quality were all in the same direction and occurred in the same degree in the different industries. Here again, however, it is necessary to consider only changes of considerable magnitude and to ignore minor variations that occur from year to year in an individual industry or minor differences in trends between different industries through time.

It should be further noted that factory production leaves out a considerable proportion of the gainfully employed other than those already accounted for in agricultural production. The most important omission is the group engaged in distribution and finance, although there still remain those employed in the building industry, in governmental work, in personal service activities, etc. No data of any sort are available on the changes in volume of distribution and personal service during this period, and the information on those engaged in governmental activity is clouded by the use of public works as a method of unemployment relief. An approximate index of the changes in employment in the building and construction industry is shown in Table 72. This industry should be considered

TABLE 72*

PERSONS EMPLOYED IN BUILDING AND CONSTRUCTION
IN NEW ZEALAND, 1930-35

Year Ending March 31	Persons Employed [†]
1929-30	11,312
1930-31	9,505
1931-32	4,869
1932-33	3,922
1933-34	4,459
1934-35	6,852

*Source: New Zealand Official Year Books.

[†]Average monthly employment for year.

as essentially domestic production, although, like many other domestic industries, it is in a sense a processor of imported commodities. Employment in this industry is, of course, notably sensitive to the

business cycle.

Although the data are incomplete, it seems clear that the impact of the decline in demand for exports was to increase slightly the relative proportions of resources devoted to export production and to decrease the proportion engaged in the productions of goods and services for home consumption. Our theoretical discussion indicated that the probable allocation of resources was difficult to forecast, as it was a complex of price elasticities, income elasticities, and conditions of production. In general, however, we should have expected that there would be a transfer of productive resources from export goods to domestic goods, and it is this aspect of the theoretical model that is not verified by our findings.

In analyzing the apparent discrepancy between theory and fact, three things should be borne in mind. In the first place, as the theoretical model recognized, export production might expand in relation to domestic production if the domestic income elasticity of demand for imported products (the propensity to import) was high and if the foreign demand for export products was elastic. This might have been the case in New Zealand, although such data as have been assembled indicate only that domestic consumption of export products was not greatly affected and that the income elasticity of demand for a substantial item in the import class (interest payments abroad) was zero. Second, part of the anticipated shift to domestic production was expected to take place through the production locally of goods previously imported. This expectation was verified, but it was offset by the decline in production of goods that had previously been produced at home rather than imported. A major factor in this latter trend was the decline in building and construction, involving a type of durable goods that is always subject to considerable contraction in a period of falling incomes. In fact, the shift of resources may be said to have been from the production of durable goods to the production of perishable goods in the period under consideration, export goods happening to be less durable on the whole than domestic goods. As a matter of fact, the demand for those imported products which might be classed as durable goods (automobiles, machinery, textiles, etc.) also fell quite sharply. In the short run there is a tendency for the income elasticity of demand for durable goods to be quite high—a factor which explains to a large degree what is observed to have happened in New Zealand. Finally, the government took action to preserve and encourage

the production of export commodities.¹⁷ It may be fairly said that export (agricultural) production was subsidized to a greater degree than domestic production. In part, this procedure was due to the general feeling that agricultural production is vital to the well-being of New Zealand (e.g., it is referred to as primary production), and, in part, it was due to the political strength of the rural areas. Although it is impossible to evaluate the influence of the subsidies, they must certainly be considered as factors which operated over and above those recognized in the development of theory.

Summary

A review of the evidence presented in this chapter leads to the over-all conclusion that the sequence of events forecast by orthodox or classical theory was verified by the events that took place in New Zealand. Some modification of theory was recognized to allow for the fact that New Zealand is a debtor country and that the currency was not tied to gold in any direct way. If sterling assets be regarded as the primary banking asset rather than gold, we see that the influence of the decline in demand for export goods acted to reduce these assets and to lead in a relatively short time to a reduction of money in circulation in New Zealand. The price of export goods fell relative to the price of import goods, while the price of domestic goods declined to an intermediate degree. There was a reduction in the prices of New Zealand factors of production and a tendency toward the production of goods formerly imported. In addition, the impact of declining incomes seems to have led to a greater restriction of the consumption of durable goods, although it is difficult to separate sharply the income effect from the price effect. Thus, while the events anticipated by classical theory did take place, the full adjustment was not a matter of relative price movements alone. It is equally clear that the adjustment was not reached purely by means of changes in purchases attributed to the income effect.

A major difficulty of theoretical analysis is that it can be extended and modified to cover every conceivable situation, and hence tends to lose significance as a tool of prediction. In the New Zealand case the basic assumptions of classical analysis have been found to be sufficiently realistic to be useful, and the possible relation of durability of goods to income elasticity of demand in the short run may be sufficiently highly correlated to enable more complete forecasts to be made in other specific situations.

¹⁷See below, Part III.

PART III

AN ANALYSIS OF GOVERNMENTAL POLICY

CHAPTER IX

THE COALITION GOVERNMENT

The cost-cutting, budget-balancing attack on business depression as opposed to the deficit-financing, wage-raising procedure has created much discussion. Because of a series of special circumstances, it is possible to throw some light on this discussion by an analysis of the New Zealand situation. The national elections were held in New Zealand in December, 1931, before the full brunt of the depression had been felt by the New Zealand electorate. A coalition of the Reform party and the United party, formed in September, 1931, was sufficient to carry the election, and, by postponing the next general election, it remained in power through 1935. The 1935 elections, in which the Coalition party was defeated by the Labor party, marked the introduction of a series of measures which may be termed "liberal" or "new deal."

This sequence of events makes it possible to study the effect of the cost-reducing attack on the business depression, as this policy was generally followed by the Coalition government during the major years of the depression. A further study can be made of the effects of the deficit-financing philosophy, although action in this regard on a large scale was not taken until 1936. The specific steps taken by the two governments will first be described, and then an attempt will be made to evaluate the basic points of view as a general guide to policy. Although it is admittedly difficult to trace the results of specific legislation, or even of a general program of action, the special situation in New Zealand warrants drawing certain conclusions. It should be understood that the findings reflect the particular conditions as found in New Zealand and consequently cannot be applied mechanically to other countries. The findings, even as a guide to policy in New Zealand, are restricted by the particular conditions of the 1931 depression.

General Philosophy of the Coalition Government

It is very difficult to formulate the general policy of a government, since the government is composed of many individuals whose statements may or may not reflect the opinions of the majority. From a broad consideration of the legislation passed, which is probably as good a guide as any, it would seem that there was agreement among the members of the Coalition government on three main points: (1) that the prosperity of New Zealand depended on

the prosperity of agricultural production and that every effort should be made to encourage the production of export products; (2) that the solution to the depression problem was to be found in reducing internal costs in order to make possible continued exports and full employment; and (3) that the budget should be balanced and all nonessential government activity cut to the bone as a type of luxury that could not be enjoyed in a depression.

Probably the best statement of this general viewpoint is the following extract from the Canterbury Chamber of Commerce Bulletin of July, 1931. The Chamber of Commerce Bulletin, prepared by members of the department of economics of Canterbury College, is of significance, since the governmental policy was based largely on the recommendations of New Zealand economists.

It is a truism that the primary industries constitute the foundation of all New Zealand's economic life. The exports of other industries are so small as to be negligible; they cater to the local market. The primary industries export the produce whose proceeds, usually supplemented by new borrowing abroad, pay both for all necessary imports and for interest on all public and private debt due overseas. Moreover, the sale of pastoral products alone, both overseas and at home, has provided in recent years approximately half of the total national income of the Dominion. The circulation of this half of the national income also provides the source from which much of the other half of the income is drawn.

The decline in purchasing power that has resulted from the contraction of national income means that our income is no longer sufficient to buy the same volume of locally produced and imported goods and of services as before at the same level of prices. This is the essential cause of the depression. That depression is due, not to the fall in export prices or to the contraction of national income alone, but rather to the disparity between different price levels, that is, to the fact that internal prices are much higher than export prices.

The remedy for depression and unemployment is therefore a restoration of price equilibrium, which might occur either through a rise in export prices or a fall in internal prices. We cannot control export prices and there are no grounds for anticipating that they will rise in the near future sufficiently to restore price equilibrium. But it is certain that neither depression nor unemployment in New Zealand can be substantially lessened until some nearer approach to price equilibrium is made, and the remedy of effecting this equilibrium by reducing internal prices lies in our own hands. These internal prices, which constitute the rewards of production for some industries, constitute also the costs of production for others, and at the present time depression is largely the result of the fact that the costs of production are too high to be covered by what the market can pay for the product of industry.

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The maintenance of high internal prices, taken with the decrease of purchasing power, means a contraction of the market. The market may be expanded again, despite diminished purchasing power, by reducing both costs and prices and so enabling larger outputs to be sold. At the moment every contraction of the market has repercussions which tend to contract it further. The lowering of costs and prices might reverse this process. Then every reduction of cost

would stimulate buying, encourage production elsewhere, increase employment, promote confidence and hasten those adjustments that are the necessary bases of escape from depression. The Governor-General has publicly urged a method of securing these ends capable of wide adoption, in the rationalization of industries in order to ensure both reduction of costs of production and reductions in the prices of output. Such developments provide the surest way to promote increased purchases by New Zealanders of their own manufactured goods and the closer development of our land with its resultant larger consuming as well as producing population.¹

Further evidence of the general attitude of the government, particularly as it affects the matter of a balanced budget, is contained in the following extracts from the annual reports of the Minister of Finance.

Some of the [economy] proposals will, no doubt, be strongly resisted, but it is useless to disguise the fact that unless the public is prepared to support these steps it will have to submit to higher taxation or allow a heavier drift to take place in our finances, and this would seriously affect our credit.²

Budgeting for a deficit cannot be regarded as satisfactory, and in normal times such a course would be inexcusable. At present, however, we are driven to it by the adversity of circumstances over which we have no control. . . . Our intention is to reach budgetary equilibrium at the earliest possible moment; but to have achieved balance this year, either by increasing taxation or by further slashing expenditure, would have involved far greater strain on the internal structure of the country than would have been advisable in the circumstances.³

Another statement of the general trend of thinking is to be found in the report to parliament of a special committee composed of the following men: James Hight, H. Belshaw, D. B. Copeland, A. D. Park, and A. H. Tocker. These economists, although not members of the government, influenced and reflected the thinking of the men directly responsible for formulating policy. The statement emphasized the following three aspects of the problem of readjustment: (1) the removal of price discrepancies by increasing the receipts of farmers, or decreasing internal costs, or by a combination of both; (2) the spreading of the loss resulting from the depression more evenly over the community; and (3) the balancing of local body budgets.⁴

Perhaps the most important piece of legislation implementing

¹Canterbury Chamber of Commerce, Reduction of Costs (Bull. 72 [Christchurch, January 1931]).

²W. Downie Stewart, "Supplementary Financial Statement [October 6, 1931]," Appendix to the Journal of the House of Representatives of New Zealand, Session 1931, Vol. I (Wellington: Government Printer, 1931), B-6 Supp., p. 6.

³J. G. Coates, "Financial Statement [November 9, 1933]," ibid., Session 1933, Vol. I, B-6, p. 20.

⁴Report of the Economic Committee, ibid., B-3, p. 31.

the general thought of the government in attacking the depression is the Adjustment of Public Expenditures Act, which was passed May 10, 1932. This act had as its goal the reduction of government expenditures in order to aid the budget situation and the reduction of rigid costs. The hope was to distribute the burden of the depression more equitably and at the same time reduce internal costs of production. The major provisions of the law were: (1) a reduction in government salaries on a sliding scale varying from 5 per cent to 15 per cent depending upon the gross income being received; (2) a reduction in pensions of approximately 10 per cent, with increasing reductions as the size of the pension increased; (3) a requirement that private contracts involving the payment of interest or rent should reduce their rates by at least 20 per cent of the rates in existence on January 1, 1930, and that dividends on cumulative preferred stock should be reduced by 20 per cent (providing the rate did not fall below 5 per cent); (4) the levying of a stamp duty of 3d. for each 2s. 6d. of interest on government securities (preparatory to converting outstanding locally held securities to a lower rate); and (5) empowering the Governor-General to fix the interest paid by banks and investment societies.⁵

This legislation had been preceded by the Adjustment of Public Expenditures Act of April 11, 1931, which had cut the wages of government employees a flat 10 per cent and by empowering the arbitration court to amend the industrial agreement concerning wages had resulted in a general lowering of wage rates. Shortly thereafter the powers of the arbitration court were sharply limited, so that there was more free play of the factors tending to cause wages to decline further.

The basic policy of attacking the depression through reducing costs continued throughout the entire period of the depression, serving as the background for the other steps taken to meet the situation.

Unemployment Relief

In order fully to understand the measures taken by the government to meet the increasing unemployment during the depression, it is necessary to recognize that unemployment was a serious problem several years before the world depression set in. For example, the Governor-General in his opening address to Parliament June 27, 1929,

⁵Except where noted otherwise, the data on specific legislation have been obtained from *The Statutes of the Dominion of New Zealand* (Wellington: Government Printer [separate volumes for each legislative session]).

made the following statement:

In common with other countries of the world, the Dominion is still suffering from the evils of unemployment, although it is a matter for congratulation that this trouble in New Zealand is comparatively less in scope than elsewhere. Remedial measures, absorbing a large section of those unable to find work, have been taken by my government, and there are now employed on the public works of the country a very large number of men in excess of those who would be engaged in such work in normal times. The action taken by the Government, in conjunction with municipal authorities, has provided much needed relief, and proposals dealing with the general question of unemployment will be brought before you.⁶

Data available concerning the number of persons registered for employment at the Labor Department employment offices indicate that unemployment had increased markedly in 1926 and continued to increase during the next three years. Table 73 shows the maximum number registered for employment during the years 1922 through 1929.

TABLE 73*
MAXIMUM UNPLACED APPLICANTS WITH
LABOR DEPARTMENT

1922	1,813
1923	903
1924	572
1925	792
1926	2,247
1927	2,910
1928	3,414
1929	3,896

*Source: New Zealand Official Year Books. Although these figures do not represent a complete count of the numbers unemployed in New Zealand, the changes from year to year are believed to be representative of the relative changes in actual numbers unemployed.

In 1928 a detailed study of the unemployment situation was undertaken by a special committee. Their findings, presented in 1929 and 1930, while recognizing the influence of wage rates in equating the supply and demand for labor, indicated that the main causes for unemployment were seasonal. The list of causes presented in the report, presumably in the order of their importance, is as follows:

1. Seasonal unemployment in primary (agricultural) production
2. Seasonal unemployment in industries devoted to the handling and processing primary products
3. The substitution of machinery for labor in industry
4. Declining demand for some products due to the development of substitutes

⁶New Zealand Parliamentary Debates, CCXXI (Wellington: Government Printer, 1929), 2.

5. Trade depressions

6. Inadequate or improper training of workmen⁷

In the recommendations for means of meeting the unemployment problem main stress was placed on two factors; (1) the provision of useful temporary work for the unemployed such as afforestation, the reclamation of sand dunes, etc., and (2) the establishment of an unemployment board to administer funds provided by a levy on all workers. The emphasis was on means of providing temporary relief and funds for such a purpose; there were no recommendations concerning the revision of wage structures or for basic retraining of workers. The use of a public works program for relieving unemployment was not recommended but was virtually dismissed as the usual (and by implication unsound) method of meeting the problem.⁸

Largely as a result of this report an unemployment board was set up in 1930 by an act of parliament, and a fund was established by levying a poll tax of 7s. 6d. per year on all males over twenty years old, supplemented by a tax of 3d. per pound of all wages and by grants from the Consolidated Fund. On July 22, 1931, the act was amended to increase the poll tax to £1 per year. In April, 1932, the levy on wages was increased to 1s. per pound of all wages and other income, while the subsidy from the Consolidated Fund was discontinued. The funds thus provided were used in the main to pay the wages of men engaged in work provided by local authorities. The amount of income provided for an unemployed person was regulated both by the number of days per week he was permitted to work and by the rate of pay allowed. Single men were granted two days weekly at 9s. per day; married men with less than three children, three days at 12s. 6d.; and married men with three or more children, four days at 12s. 6d. This action was taken both because of the limited funds available and because of the belief that relief work should not be so attractive as to prevent men from entering private employment. Small amounts which at first were granted to farmers and private employers providing work for unemployed persons were soon discontinued when it was learned that some employers were discharging men only to rehire them as unemployed in order to receive the subsidy.⁹

⁷Appendix to the Journals of the House of Representatives of New Zealand, Session 1929, Vol. III, H-11b, p. 9.

⁸Ibid., p. 2.

⁹For a further discussion of this matter see R. M. Campbell, "Unemployment Relief in New Zealand," Economic Record, Vol. VIII (May, 1932), and James P. Belshaw, "Post-war Unemployment Policy in New Zealand," Economic Record, Vol. IX (June, 1933).

That public works did not enter the picture to a greater extent than they did resulted not only from the adverse report of the Committee on Unemployment, which set the basic policy, but from the fact that public works were normally financed by borrowings abroad, and there was considerable feeling that in times of depression it was unwise to increase the debt due abroad. An example of this point of view is the statement made by the Minister of Finance in October, 1931:

The fall in national income and in the taxable capacity of the people has automatically increased the relative burden of the existing debt charges. The sooner we can cease borrowing abroad the better, and this remark applies equally to the loan expenditures of local authorities as well as to Government expenditures.¹⁰

Possibly a more direct statement of the point of view of the government toward meeting the unemployment problem through an expansion in public works is shown by the statement of the Honorable J. G. Coates in 1933:

A large and relatively sudden expansion of public works would no doubt act as a stimulant, but, having regard to the other side of the picture in present circumstances with the relative weight of all debt charges greatly increased by the fall in prices, it is obvious that any such expansion could not be maintained for long, and when the effect of the stimulant had worn off the community would be in a worse position than it is now—that is, apart from any improvement resulting from a rise in prices. No country can borrow its way into prosperity.¹¹

This point of view was maintained throughout the period and was reinforced by the obvious burden of meeting the fixed interest charges on the foreign debt already outstanding. A final quotation, from a report presented by the Honorable G. W. Forbes, prime minister, presents the attitude of the government even more clearly:

These allocations represent further substantial reductions even in last year's expenditures, but under the circumstances there is no alternative, and the government is unwilling to be a party to adding to the already heavy debt charges which have to be found by the taxpayer. To illustrate this point, I may explain that 13 per cent of the value of the dominion's exports was sufficient to meet the external debt charges in the year ended 31st March, 1929, whereas last year no less than 21 per cent was required to meet these overseas obligations. Debt charges which we could comfortably afford in more prosperous times have now become a real burden on the community.¹²

The effectiveness of the government's policy is difficult to

¹⁰ Appendix to the Journals of the House of Representatives of New Zealand, Session 1929, Vol. I, B-6, p. 8.

¹¹ Ibid., Session 1933, Vol. I, B-6, p. 20.

¹² Ibid., Session 1932, Vol. I, B-6, p. 18.

measure. The main effort was directed toward providing relief from distress, but in a statistical sense this aggravated rather than diminished the problem that was faced. Since the administration of relief required that all persons assisted be registered with the Employment Bureau of the Labor Department, there occurred a sharp rise in this figure, which made it appear that unemployment had increased sharply. Although there is no way of knowing the exact situation, it is clear that attention was thus directed to the degree of unemployment that existed, and there is little question but that many unemployables were thus classified as unemployed. Table 74 shows the sharp change that took place in the records as the result of this administrative action.

TABLE 74*

PERSONS REGISTERED FOR EMPLOYMENT WITH
THE LABOR DEPARTMENT†

1929	2,941
1930	5,639
1931	49,132
1932	56,402
1933	56,914
1934	50,532

*Source: New Zealand Official Year Books.

†As of August 15 of each year.

A less publicized attack on the problem was the elimination of compulsory arbitration in 1932. There is no question but that this action permitted wage rates to fall faster than they otherwise might have done, and to the extent that reductions in wage rates are influential in this direction, re-employment was encouraged. The elimination of compulsory arbitration was part of the general program of reducing internal costs that was discussed earlier in this chapter, but it should be recalled that as early as 1927 an attempt had been made to exclude farming and certain associated industries from the jurisdiction of the courts. While this was only partially successful, it indicates that the change in attitude toward compulsory arbitration was not purely a matter of combating the depression.

A final step taken in meeting the problem of unemployment was an act passed in April, 1931, empowering the Governor-General to prohibit or limit the immigration of any class, race, or occupation. Although no specific actions were taken under this authority, it marked a distinct change from the attitude of encouraging immigration that had existed prior to the depression.

The Agricultural Problem

As has already been pointed out, encouragement of agricultural production was a major point in the government's policy of meeting the trade depression. This emphasis resulted from the fact that the depression in New Zealand was a result of the depressed prices for agricultural commodities and from the conviction that internal prosperity would return if the export income increased. Since it was impossible to control export prices, the only means of increasing export income was to increase the volume of business done at these prices. The national point of view was that the external demand for New Zealand exports was infinitely elastic at the price ruling at any time, and there is no indication that there was any fear that increased production in New Zealand might cause lower world prices.

In addition to the belief that increased agricultural production would ease the internal situation, there was a wide acceptance of the view that total values of exports had to be maintained in order to provide sterling funds to meet the debt charges due abroad. Finally, it was believed that the impact of the depression had been felt to a greater extent by farmers than by any other group, so that some adjustments were required simply as a matter of equity. This matter of "spreading the burden" of the depression received considerable attention and forms part of the background for the steps taken in regard to agriculture.¹³

The heart of the agricultural problem lies in two facts—the fluctuations in cash income due to the flexibility of farm prices and the rigidity of cash outlays which results from financing farm operations by mortgages. Frequently the mortgage contract calls not only for payment of interest but also for annual repayment of principal, which, though not properly a cost of farming, represents a fixed cash drain that makes the farmer vulnerable to falling cash incomes.

The ease of purchasing farm land on mortgages tends to make farming a speculative operation for two reasons. In the first place, the rigidity of mortgage costs through time makes it possible to secure marked gains in periods of rising prices, although there is a corresponding risk of total loss in prolonged periods of depressed prices. Second, through the principle of "trading on equity," mortgage finance develops competition for lands which tends to hold the average yield of farm operations very close to the interest rate

¹³See the report of the Economic Committee, above, p. 155.

on farm mortgages. For example, if farm lands were valued at ten times earnings (assuming that prices and costs are constant or that probable changes can be fairly well anticipated) while farm mortgages could be secured at 8 per cent, self-interest would lead a farmer to carry as heavy a mortgage as possible in order to maximize the return on his own investment. Land purchased outright would yield 10 per cent on the money invested, while land mortgaged up 75 per cent of its value would yield a return of 18 per cent on the money invested by the owner.¹⁴ Competition between buyers tends to drive up the value of farm land until its net yield is approximately equal to the mortgage rate, leaving the owner with a very narrow margin to protect himself against depressed prices.

In private finance the possibilities of loss have led both borrowers and lenders to be cautious where the demand for the finished product is subject to sharp fluctuations. "Trading on equity," though characteristic of public utilities, is seldom followed in financing manufacturing operations. In fact, the difficulty of securing "reasonable" financing of farm properties from private sources led the New Zealand government to take over the task of providing funds. The net result is that the New Zealand agricultural situation is marked by a high degree of debt financing of farming operations.

The origin of the policy of mortgage loans to New Zealand farmers by the government may be traced back to 1894. In that year the Advances to Settlers Act was passed, which provided for loans to individuals from moneys secured by public borrowing. The substitution of public credit and the possibilities of borrowing abroad made it possible to make loans at substantially lower rates than were available through ordinary commercial channels. The firm conviction that the prosperity of New Zealand lay in the development of primary industries and in "closer settlement" led to a relatively generous practice of granting loans on mortgages. After World War I, the basic policy received further impetus through the Discharged Soldiers Settlement Act, which provided for loans to soldiers who wished to take up farming. An additional source of funds has been the Public Trust Office, which, in administering estates left in trust, has invested well over half of its funds in farm mortgages

¹⁴ Assume that the land yields 20s. per acre. If purchased outright, the owner's investment would be 200s. per acre and the return would be 10 per cent. If the owner put up 40s. of his own money and borrowed 160s., his net return per acre after paying interest on the borrowed funds at 8 per cent would be 7.23 (20 - [160 X .08])—a return of 18 per cent on the 40s. per acre invested.

both directly and through the purchase of government securities. In 1927 the Rural Intermediate Credit Board was created to lend money on chattel mortgages both directly and through co-operative associations. The major part of this type of business, however, has been handled by independent concerns known as stock and station agents, since this type of lending, being for shorter lengths of time and secured by assets which are easily marketed, has offered a much more favorable field for private finance than the mortgaging of land. Exact data on farm mortgages are not available, but it has been estimated that 75,000 out of 84,000 farm holdings are financed by mortgages of one sort or another.¹⁵

In view of this general situation, it is little wonder that the severe fall in the price of agricultural and pastoral products in the years 1930-32 placed the farmers in New Zealand in a precarious position. A great many farmers stood to lose their entire equities in their holdings, while the interests of the primary lenders would be fully protected, since a substantial part of the mortgage money had been raised abroad by the government. The political implications of this situation are obvious and were reinforced by the imperative need for continued production of export commodities. Since there was no way of increasing export prices, the only ways of keeping the farmer in possession of his lands were to increase the income from farming quickly, either through a general scaling-down of money costs or through direct or indirect subsidy, or to suspend the terms of the mortgages.

The government met the problem by granting relief to mortgagors through a series of acts starting in 1931. The first act, passed April 11, 1931, required that written notice be served on the mortgagor before causing sale, obtaining judgment, or filing a petition of bankruptcy against him. The mortgagor was permitted to petition the Supreme Court for relief, and the court was empowered to prevent the mortgagee from taking any action for a period of twelve months—regardless of any provisions that may have existed in the mortgage contract. The period of time could be extended on further petition, and there was no appeal from the decision of the court.

On November 11, 1931, the original act was extended to December 31, 1933, and the court was authorized to postpone the due date of payments of interest or principal for two years, reduce the rate of

¹⁵A. H. Flay, "The Rehabilitation of Farmers in New Zealand," Economic Record, XV (October, 1939, Supplement), 150.

interest on mortgages, or remit the whole or any part of arrears in interest. Since this authority was limited to mortgages on farm land, it marks the legislation as an attempt to meet the difficulty being encountered by agricultural producers. At this time an adjustment commission was formed to investigate claims for relief and to make recommendations to the courts for action. This step was taken to relieve some of the pressure on the courts in regard to mortgage relief; at the same time it was hoped that through the commission voluntary agreements might be reached that would be more flexible than provided for by law.

During 1932 two amendments to the Mortgage Relief Act extended the scope of the legislation but did not change its viewpoint or methods of operation. The act was no longer restricted to mortgages, and a petition might be filed even if no action had been taken by the mortgagee. The court was empowered to make adjustments of royalties paid for timber, flax, and coal, and to join the mortgagee of livestock with other parties in working out an equitable agreement. This latter provision was included because in many cases where farmers had been granted relief on mortgages on their land the money thus secured was used to pay up arrears of interest on mortgages on stock.

In January, 1933, an entirely different approach to the agricultural problem was taken through the pegging of exchange rates at £N.Z.125 for £stg.100. Exchange rates had already moved to £N.Z.110 under the actions of the banks, but the further step was a matter of government policy. The purpose was to increase the price of exports as expressed in New Zealand currency and in this way to relieve the pressure on farmers, as their costs in New Zealand currency would be much less affected. It was recognized that there would be an increase in prices of imported commodities and in the debt burden abroad in terms of New Zealand currency, but these adjustments were considered a "sharing of the burden" and hence were not ruling factors. The action taken by New Zealand was undoubtedly influenced by the fact that Australian currency had depreciated to a much greater extent than the New Zealand currency. The Australian action had met with considerable success and was supported by several important Australian and New Zealand economists.

It should be noted that the relief of mortgages and the depreciation of the exchange are alternative methods of attacking the agricultural problem. Since both operate through a redistribution of income, both are in a sense indirect subsidies. Of the two

methods of relief, the adjustment of mortgages seems the more equitable, for in this case the income of the mortgagees is reduced in favor of increasing the agricultural income. The adjustments are based on individual study, and a crude equity in benefits is achieved. Moreover, to the extent that the government guarantees the original interest to the original lenders (as in the case of loan funds raised by government bonds) the subsidy is taken from the taxpayers on a rough basis of ability to pay. Depreciating the exchange rates, on the other hand, improves the position of all farmers and other exporters regardless of individual circumstances, while the burden of providing the income thus shifted falls on all persons who purchase imported goods or who have debts payable in external currency. Importers with stocks of goods and domestic manufacturers who compete with imported products are benefited—again at the expense of the consumers of imported articles. The change in exchange rate increases the New Zealand currency value of all exports and may lead to an increased volume of shipments and a consequent lowering of world prices. On the other hand, the New Zealand monetary national income is increased, which may stimulate the home consumption of export goods. The major disadvantage of changing the exchange rate is the impersonal and unpredictable way in which the shift in income is obtained and the possible adverse effect on confidence of "tinkering with the currency." Its advantage is simplicity and the additional possibility that it may serve to relieve the unemployment situation by relieving the pressure on wages and other internal prices.

The depreciation of the exchange in 1933 and the improvement in prices of export products noticeable in 1934 led to the Rural Mortgagees Final Adjustment Act. The purpose of this act was to provide for a permanent settlement of farm debts in contrast to the previous legislation which was aimed at preventing immediate foreclosures of mortgages. A special court was established which was empowered to write off the excess of secured or unsecured liabilities over and above a revaluation of the property. In achieving the revaluation the court was to be guided by a budgetary record to be kept for a five-year period and to take into consideration the price of farm products over the ten-year period prior to the final adjustment. It was hoped that this adjustment would "retain efficient farmers in the use and occupation of their farms," recognizing that the adjustment would leave the farmer with his property mortgaged up to 100 per cent of its estimated value. The mortgagee was prohibited from foreclosing on the property during the period of securing data

for the adjustment, thus extending protection to the farmer for at least this length of time. The terms of this act indicate that there was some hope that within the five-year period export prices would have recovered sufficiently to make extensive readjustments unnecessary.

In addition to postponing the foreclosures of mortgages and the raising of the exchange rate, several steps were taken to reduce the cost of farming. Most important was the elimination in 1930 of the special land tax on farm lands which had been imposed in 1929 and the elimination in 1931 of the graduated feature of the land tax. This reduction in tax, being in contrast to the general policy of increasing the revenue in order more nearly to balance the budget, represents the interest of the government in lightening the burden on farmers. Subsidies were granted on the rail transport of farm products from 1932 onward, although the total amounts involved were not large. Additional subsidies on the carriage of fertilizers, which were granted in 1931, were intended not so much to reduce the cost of farming as to prevent the exhaustion of land through the failure to fertilize at the regular rate.

A final step in meeting the agricultural situation was the Agricultural (Emergency Powers) Act of 1934, the direct result of the recommendations of the Dairy Commission which had been appointed in 1933. This act, permissive in character, granted to the government the power to consolidate the operations of the various marketing boards which had been set up for various products from time to time from 1922 onward. The purpose of the individual boards had been to promote orderly marketing and to prevent abuses in consignment selling, notably in the export markets. No actions were taken under the act except for the formation of an executive commission of agriculture and the reorganization of the New Zealand Dairy Board to give greater representation to the government, both directed by the terms of the act itself. It is doubtful, in view of the limited advantages of orderly marketing, that much relief to the agricultural problem would have resulted even if the provisions of the act had been exercised to their fullest extent.

The Monetary Policy

The general policy of the government in regard to public finance has already been discussed. Briefly, the aim was to secure a balanced budget and to reduce borrowing abroad. Perhaps the major step taken in this direction was the National Expenditures Adjustment Act, already described in detail, as this represented a sincere and drastic

attempt to reduce government expenditures. The next most important step was the New Zealand Debt Conversion Act passed in March, 1934, which provided that the maximum interest payable on government securities held in New Zealand was not to exceed 4 per cent. Arrangements were made, however, so that the loss in income for any particular security would not be greater than 20 per cent—achieved by adjusting the ratio of exchange of securities bearing an original rate of interest in excess of 5 per cent. Even though the savings thus secured were partially offset by eliminating the 10 per cent tax on interest on government securities that had been imposed in 1932, the net economy was substantial. Numerous other economy steps were taken but were of relatively minor importance considered individually. One of the more unfortunate actions was the decision to postpone the 1931 census, as it breaks a series of statistical reports dating back to 1851 and makes it impossible to secure accurate data for a year of particular importance in analyzing the impact of the depression in New Zealand.

The steps taken to increase governmental income are of interest in that they reflect the serious intent of the government to achieve a balanced budget. Of greater interest, however, is the fact that the tax rates introduced as emergency measures were continued long after the depression had lifted. The specific measures need not be reviewed in detail. Customs duties were increased in August, 1930, and again in November, 1931. Stamp duties and death duties were increased in 1930, and the income tax raised in October, 1931. New taxes such as the film-hire tax of 1930 and the sales tax of 1933 were introduced. As has already been pointed out, special taxes were instituted in 1931 to meet the demands of unemployment relief.

The over-all policy of balancing the budget cannot be considered a specific policy to meet the depression, for it was essentially a heritage of the past. In one respect it conflicted with the general philosophy of cost-cutting as the fundamental method of relieving depressed conditions. In theory the fiscal operations should have been such that the government could reduce its operating expenses to the point where taxes could have been reduced rather than raised. Since in practice it was not possible to achieve these economies, higher taxes were resorted to in order to close the gap between income and expenses. It is worthy of note that some compromise was made with the policy of budget-balancing as a depression measure—the government drawing down its reserves and borrowing on short term to meet the situation. In working out the compromise, it is

clear that budget-balancing ranked equally with relief of the depression as a general objective of governmental operations.

In the field of money and banking the policy of the government seems to have been the isolation of New Zealand currency from that of other countries, notably Australia. To secure this end, the first legislation was the Coinage Act of May 27, 1933, which authorized the Minister of Finance to issue silver and bronze coins of distinctive design to be used in New Zealand. Prior to this time, British and Australian coin having made up the majority of the metallic circulation, the government had been forced to limit the import and export of coin to prevent a loss of British coin and an influx of Australian coin as a result of the changes in exchange rates during the depression. By making the new coins legal-tender metal only in New Zealand, it was hoped that these difficulties would be avoided in the future. In fact, this step was taken not so much to relieve the depression as to prevent the recurrence of similar depressions in the future, and it reflects the general belief that the Australian monetary situation had much to do with the seriousness of the New Zealand conditions.

A more important step in the isolation of New Zealand currency was the Reserve Bank of New Zealand Act, passed in November, 1933. It is clear from a study of the events leading up to the establishment of this bank, including the Niemeyer Report of 1931, that the major purpose of the bank was to stabilize the New Zealand-sterling exchange rate. As was pointed out earlier (chap. 11), the New Zealand-sterling exchange rate had always moved in sympathy with the Australian-sterling exchange rate, and there was a strong belief that most disturbances in the rate originated in Australia. The formation of a Reserve Bank was considered the means of achieving a separate, and, consequently, a more stable, rate of exchange on London. There was, at the same time, a feeling among some members of parliament that a state bank should be established whose primary function would be to relieve the depression through a policy of easy money. The bill as passed, and as administered during the term of the Coalition government, emphasized the stability of the exchanges and the independence of New Zealand from Australian currency matters.¹⁶ The following statement by the Minister of Finance is evidence of the relative strength of the various points of view:

¹⁶A. H. Tocker, "The Development of Central Banking," Economic Record, XV (October, 1939, Supplement), 45-48.

At present New Zealand has six note-issuing banks, five of which have head offices outside New Zealand. Four of these are predominantly Australian institutions. The Reserve Bank will, for the first time in the history of this Dominion, bring the control of our credit and currency into the hands of a New Zealand Board of Directors controlled by New-Zealanders.

The Reserve Bank will exist to carry out such monetary policy as Parliament may enact, the administration being a matter for the Reserve Bank Board; it will provide a uniform note-issue; it will assist the taxpayer not only by its anticipated lower rates of interest on Treasury bills, but also by any profits made by the Reserve Bank which, apart from the £25,000 going to shareholders, will accrue to the State; it will assist the banks by pooling their reserves, extending them credit in a crisis, relieving them of note-tax, and freeing them of dead gold reserves which earn no profit; it will assist the people by providing a conscious monetary policy in place of the extension of credit which aims at providing dividends for shareholders rather than at promoting the economic welfare of New Zealand; finally, it will make credit easier and cheaper in times of depression, and have a restraining influence to prevent speculation in boom times.¹⁷

International Relations

The general policy of the government in meeting the depression by increasing exports is reflected in the actions taken in regard to other nations. The most important development along these lines was the Imperial Economic Conference held in Ottawa during July, 1932, where an attempt was made to secure preferential access to British markets for New Zealand exports. In spite of the willingness of New Zealand to co-operate in any way to secure this end, only moderate progress was made because of (1) the desire on the part of Britain to protect her home industry and (2) the reluctance of Britain to discriminate against Denmark and Argentina, the major sources of competing imports. However, a trade agreement was reached in which New Zealand received assurance of free entry for butter and meats in return for reductions of tariffs on British goods.¹⁸

Further efforts were made to secure larger markets in other countries through the appointment of additional trade commissioners in Europe and North America and through special surveys made by the Department of Industries and Commerce. These efforts were essentially long run in character and are of interest mainly because of their contrast to the methods employed by the succeeding Labor government.

¹⁷New Zealand Official Year Book, 1936 (Wellington: Government Printer, 1935), p. 514.

¹⁸For a more extended discussion of the Ottawa Agreement see above, chap. iv.

One development of particular interest in the field of international relations is the extraordinary effort made by the New Zealand government to maintain full payments of interest on debts due abroad. The exchange pool organized in December, 1931, was largely for the purpose of assuring adequate funds to meet interest payments and to provide for short-term debt that might fall due. Moreover, although interest on government securities held in New Zealand was first subjected to a tax and then reduced up to 20 per cent through the conversion scheme, neither of these provisions was applied to debt held abroad even though the fundamental equity was the same in both cases. Beyond this, an act was passed December 22, 1933, requiring local bodies to pay interest and principal in sterling whenever it was clear that it had been the original intention of the local body to do so, regardless of any legal right to pay foreign-held debt in New Zealand currency.

It is difficult to identify the motives behind this determined action to maintain the credit of New Zealand. In part it may have been to maintain the good will of the British, who held the major part of the foreign debt, in the hope that it might lead to preferential treatment for New Zealand exports. In part it may have been to provide for future foreign borrowing on reasonable terms. In no small way, however, it reflects an unquestioning adherence to the moral principle that a debt should be honored no matter what the sacrifice involved. Regardless of the motive, or mixture of motives, the record of payments on international debts by New Zealand is a bright light in a period generally marked by direct and indirect repudiation.

A review of the legislation passed by the Coalition government brings out one further fact—the feeling of uncertainty that existed in New Zealand in 1932. Evidence of this is the act of April 20, 1932, which empowered the Governor-General to issue any regulations necessary for the protection of the community against violence in the event of an emergency. At the same time (May 10, 1932) legislation was passed extending the duration of parliament to December 31, 1935, a full year beyond the normal term. Regardless of the political implications of this latter action, it indicates the recognition by the government of the seriousness of the depression. How close New Zealand actually came to open rebellion no one knows, but one thing is clear—the tenseness of the situation was foremost in the minds of the governmental officials.

CHAPTER X

THE LABOR GOVERNMENT

The Labor party, which came into power as a result of the general elections of 1935, represents a distinct change in governmental policies. In order to understand the new policies, it must be recalled, first, that the Reform party and the National party had held sway separately or jointly since 1912, and, second, that the Labor party had been in existence for many years though it had had little success at the polls because of its marked socialistic tendencies. With the coalition of the Reform party and the National party during the depression, the Labor party became the only opposition party, and in response to this position it modified many of its socialistic stands in favor of crystallizing and expressing the dissatisfaction that had been growing toward the government in power. The result was a program of action that contrasted sharply with existing policy and that carried an overtone of the two socialistic objectives "from each according to his abilities and to each according to his needs" and "state ownership of the means of production."

In contrast to the previous policy of cost reduction and equitable distribution of the burden of the depression, the Labor party pledged itself to restore the previous standard of living and to resume the march of social progress. In place of the policy of promoting the primary industries, the Labor party developed the concept of economic insulation which promised stability to agriculture and progress in industry. In contrast to the policy of the balanced budget, the Labor party pledged state control of banking and credit (a sublimation of the idea of state ownership of the means of production) in order that social credit might be used to its fullest advantage. Added to this was a broad program of social security that promised full aid to all who were in need. It is little wonder that a program as appealing and dynamic as this should have swept the Labor party into power in the 1935 election; it is a tribute to the members of the new government that they secured an even greater majority of the votes in the 1938 election.¹

The specific legislation through which the achievement of the above objectives was attempted is described in this chapter, the

¹For additional information on the general policies of the Labor party see J. O. Shearer, "The Labor Party's 'New' Policy," Economic Record, XV (October, 1939, Supplement), 130-36, and D. B. Copeland, "The Economics of Insulation," Economic Record, XV (October, 1939, Supplement), 25-31.

various acts being grouped under the same general headings as in the previous chapter in order that comparisons can more easily be made. Comments on the economic implications of the acts are included in the discussion.

The Attack on Unemployment

The Labor government approached the unemployment situation on a threefold front. The most direct action was a reorientation of the public works program so that it was carried out uniformly at standard wage rates and standard hours of work rather than being used in part as a method of providing relief work at low wages for part-time employment. By this simple device, all persons engaged on public works became government employees rather than relief workers and thus left the ranks of the unemployed. This action, of course, involves a greater monetary expenditure for public works where the same number of individuals are to be assisted, but an increased expenditure is within the general policy of the government. The advantages of this policy are that it gives a lift in morale to the men employed on public works, and that by putting this activity on a business basis rather than a make-work basis, greater efficiency is secured. This step had not been taken by the previous government because of (1) the costs involved and (2) the belief that such action would prevent workers from being reabsorbed in private industry. The experience of the Labor government indicates that these objections are only partially valid, as the expansion in the public works program was paralleled with increased activity and employment in private industry. The evidence is not clear because of other factors tending toward re-employment that were operative in 1936.

The second step toward reducing unemployment was the reduction of the work week from forty-eight to forty hours in factories and shops. The weekly wage was held constant, thus causing an increase in the hourly wage. The employment situation was benefited by the short-run tendency to increase the number of workers rather than pay overtime. The ultimate effect of the higher wage rate in causing higher prices and the substitution of machines for manpower cannot be estimated.

Finally, an attempt was made to promote domestic industry through encouraging greater efficiency. An act, passed October 29, 1936, set up a bureau of industry that was given the power to investigate any industry and make recommendations leading toward greater output. The power to license members of an industry was granted, and provision was made for industry planning and research.

This step contemplated long-run improvement, and there is no evidence that it was of particular importance in the period 1936-39.

While there is some reason to doubt that these various steps really solved the unemployment problem, the facts indicate that there was considerable re-employment during the period. Table 75 summarizes the figures and compares changes in reported employment with the changes in estimated unemployment. No close agreement can be expected because of the fact that reported employment does not include all occupations and because the factors of growth of population and registration of unemployables affect the unemployment reports. The agreement of the turning-points and the relative magnitude

TABLE 75*

ESTIMATED CHANGES IN EMPLOYMENT AND UNEMPLOYMENT IN NEW ZEALAND

Year Ending March 31	Estimated Employment				Unemployment		
	Factories	Building	Public Service†	Total	Change	Reported‡	Change
1929-30 ...	82,861	11,312	37,386	131,559	.....	.....	.....
1930-31 ...	77,914	9,505	37,037	124,556	- 7,003	53,006	.....
1931-32 ...	68,697	4,869	33,630	107,196	-17,360	69,558	16,552
1932-33 ...	68,921	3,922	31,915	104,758	- 2,438	72,003	2,445
1933-34 ...	72,651	4,459	32,340	109,450	4,692	59,434	-11,569
1934-35 ...	79,358	6,852§	34,253	120,463	11,013	57,105	- 2,329
1935-36 ...	86,588	8,346	36,271	131,205	10,742	44,013	-13,092
1936-37 ...	96,401	9,721	41,005	147,127	15,922	33,069	-10,944
1937-38 ...	102,344	11,471	46,189	160,004	12,877	34,595	1,526
1938-39 ...	102,535	14,040	50,625	167,200	7,196	.....	.....

*Source: New Zealand Official Year Books.

†Contributors to public service superannuation fund plus number of employees reported by railway board.

‡Average persons supported through relief funds.

§Larger sample covered in this and succeeding years.

of the movements is of some interest, and there is some indication that reported unemployment lags somewhat behind actual unemployment. In interpreting the success of the Labor government policy, we must remember that total value of exports increased more rapidly from the period 1936 onward than they had in the years immediately preceding. In fact, the influence of the value of exports seems to be the major factor in explaining all changes except the increase in persons on the public pay roll.

The Agricultural Policy

The main innovation in agricultural policy by the Labor government was the provision of guaranteed prices for dairy products. This was achieved through an act passed May 15, 1936 creating a Minister

of Marketing who not only took over all the powers that had previously been granted the Executive Commission of Agriculture but was empowered to take title to all dairy products when placed on board for export and to fix the prices for such products both for export and for domestic consumption. The act stated that the minister, in fixing the prices, should take into consideration the following factors: (1) stability of the dairy industry; (2) cost of efficient production of dairy products; (3) the general standard of living in New Zealand; (4) the cost of marketing dairy products; and (5) any other matters deemed relevant. In addition, the act states that the prices "shall be such that any efficient producer engaged in the dairy industry under usual conditions, and in normal circumstances, should be assured of a sufficient net return from his business to enable him to maintain himself in a reasonable state of comfort." A dairy industry account was established at the Reserve Bank which was to hold any surplus resulting from the difference between fixed prices and market prices and to provide for any deficit that might occur either seasonally or in the long run. In addition, the Minister of Marketing was given the power to negotiate reciprocal trade agreements in furthering the sale of dairy products.

The basic principle that cost should determine the price of dairy products is a step in the direction of stability in that costs tend to change less rapidly than world market prices. Furthermore, the policy of guaranteeing a fixed price to the producer eliminates one of the main difficulties that had existed in the previous situation as far as debt financing was concerned. The major objection lay in the surrender of price as a guide to the allocation of resources, a fact of particular importance in view of the vague standards of cost set up in the legislation. Further, there was some possibility of political difficulties if the market prices should be above guaranteed prices for any considerable period.

As the situation worked out, there was a steady rise in the guaranteed price up to the outbreak of the war, with the exact figures shown in Table 76. This increase occurred in spite of the rising deficit in the dairy industry account and was accompanied by continued protests from the dairy farmers that the prices had not been raised sufficiently. There has also been some evidence that there may be opposition to the use of future surpluses (if any) to pay off the deficit already incurred, and there is even more certain indication that there is little possibility that guaranteed prices will be

TABLE 76*
GUARANTEED PRICES ESTABLISHED FOR BUTTER AND CHEESE

Production Season	Guaranteed Price for Butter	Guaranteed Price for Cheese
1936-37	12.5625 ^d .	6.8125 ^d .
1937-38	13.66	7.75
1938-39	14.8+	8.4+

*Source: H. Belshaw, "Guaranteed Prices in Operation," Economic Record, XV (October, 1939, Supplement), 69-81.

^dEstimated.

lowered.²

The other steps taken by the Labor government in aiding agricultural producers were similar to those of the previous government. On October 1, 1936, the Mortgagors and Lessees Rehabilitation Act was passed which provided for the immediate adjustment of outstanding debt. It differed from previous legislation in that the five-year "survey" period was eliminated and that the scope of the law was extended to include homeowners as well as farmers. The language of the new act reflects the over-all viewpoint of the government:

The general purpose of this act in relation to farmer applicants is to retain them in the use and occupation of their farms as efficient producers, and to make such adjustments of their liabilities as will insure that the liabilities secured on any property do not exceed the value of that property, that the rent of any leasehold property does not exceed the rental value of that property, and that the total amount and terms of payment of all liabilities (whether secured or unsecured) are such that, after allowing for all normal current expenditure and providing for the maintenance of themselves and their families in a reasonable standard of comfort, the applicants may reasonably be expected to meet their liabilities as they become due, either out of their own moneys or by borrowing on reasonable terms.

The administration of the act was placed in the hands of the courts, who were empowered to appoint adjustment commissions to make the proper valuations and order the writing-off of debt subject to an appeal to a court of review.

There is something to be said in favor of the immediate adjustment of liabilities in that it tends to remove uncertainty. On the other hand, the procedure of adjustment being difficult, more justice would be done if the work were accomplished slowly over a period of years. Flay has indicated that equitable adjustment was achieved only in an approximate way, partly because of the lack of experience

²Cf. James P. Belshaw, "Post-war Unemployment Policy in New Zealand," Economic Record, IX (June, 1933), 80.

of the men making the adjustments and partly because of the difficulty of giving content to such terms as "the average efficient farmer," "normal current expenditures," and "reasonable standard of comfort."³ Basically, however, the difficulty of any adjustment arises from the fact that it must be tied to a particular market price—whether it be the current price or the average of prices over any given period of time. If the price should move above or below this standard, either excess profits will be reaped or further adjustment will become necessary. As it happened, price levels fell somewhat after the adjustment was made, and in January, 1939, according to estimates, 47 per cent of the rehabilitated farmers in Canterbury were again in financial difficulties.⁴

As a final step in assistance to farmers the Labor government abolished the Mortgage Corporation which had been formed by the Coalition government in 1936 and substituted in its place the State Advances Corporation. Although the changes involved in the formation of the Mortgage Corporation to replace the State Advances Office and in the subsequent conversion of the Mortgage Corporation to the State Advances Corporation are essentially changes in the form of the organization rather than its operations, the opposing points of view represented are of some interest. The Mortgage Corporation had been set up by the previous administration as an independent unit financed in part by private capital with the state exerting its control indirectly through the power to appoint members to the board of directors. As a result of this operation the interest rates and lending policy would represent more nearly the activities of a completely independent mortgage finance company. The State Advances Corporation, on the other hand, was considered an integral part of the government, and its securities were guaranteed by the credit of the state. As a result, interest rates were more likely to be lower and the lending policy geared to reflect such ideas as "closer settlement" rather than ability to pay. These points of view have a direct bearing on the agricultural problem, as the lower the interest rates and the more liberal the terms on which money may be borrowed, the greater the stimulus to debt financing and the greater the burden of a fall in agricultural prices. The formation of the State Advances Corporation ties in with the presumed stability of guaranteed prices,

³A. E. Flay, "The Rehabilitation of Farmers in New Zealand," Economic Record, XV (October, 1939, Supplement), 154.

⁴Ibid., p. 155.

but the basic idea behind the change was relief to farmers through lower interest rates and the expansion of prosperity through the use of "social credit."

Monetary Policy

The interest of the Labor government in making the fullest possible use of public credit is reflected in the fact that the first piece of legislation acted upon by the new government was the Reserve Bank Amendment. This act, passed April 8, 1936, carried the following statement of purpose:

It shall be the chief function of the Reserve Bank within the limits of its powers to give effect as far as may be to the monetary policy of the Government as communicated to it from time to time by the Minister of Finance. For this purpose, and to the end that the social and economic welfare of New Zealand may be promoted and maintained, the Bank shall regulate and control credit and currency in New Zealand, the transfer of moneys to and from New Zealand, and the disposal of moneys that are derived from the sale of any New Zealand's produce and for the time being are held overseas.

The major changes introduced by the amendment were the grant of power to the Reserve Bank to finance export-marketing operations through unsecured loans and the liberalizing of the powers to lend funds directly to the government through the purchase of bonds and treasury bills. All privately held shares of the Reserve Bank were redeemed at the current market price, and provision was made to have all the bank's directors appointed by the state. Here again, as in the case of the State Advances Corporation, the major change is in the point of view expressed rather than in the particular forms provided in the law. As pointed out previously (chap. iii), the formation of the Reserve Bank was the initial inflationary move, although the actual development of inflation was essentially a matter of the exercise of the powers granted.

In the field of public finance it was apparently the policy of the Labor government to float long-term securities in New Zealand rather than abroad. This step was taken not because of any belief that the external debt burden was too heavy, but instead because of the belief that domestic borrowing would lessen the impact of outside monetary factors--thus tending toward the ideal of "insulation" for New Zealand. This independence of foreign borrowing was further encouraged by the thought that the use of public credit through the Reserve Bank would be sufficient to take care of New Zealand's needs.

It does not require a very complicated monetary theory to point out that inflationary borrowing through the Reserve Bank would tend to encourage imports and lead in time to a drain on London assets.

Apparently, however, the leaders of the government did not recognize this possibility, nor did they recognize the sensitivity of the New Zealand economy to a threat of further depreciation of the currency in terms of sterling. As pointed out in chapter vi, there had been a considerable inflow of private short-term capital shortly after the exchange had been pegged at 125 in 1933. The motive for this inflow was the tentative nature of the exchange-pegging and the long-run possibilities of gain should the New Zealand pound resume its former rate of exchange with sterling. Internal inflationary borrowing with its consequent pressure on London assets would tend toward a further depreciation of the New Zealand currency rather than its appreciation, thus causing a withdrawal of speculative funds. This apparently was the sequence of events in New Zealand and accounts largely for the decline of London funds from £44m. in June, 1936, to £9m. in June, 1939. It should be stressed that this was not a "flight of capital" in the sense that it represents a loss of confidence in the purchasing power of New Zealand currency by New Zealand investors, but it is more in the order of a withdrawal of speculative funds in the face of a change in the basic outlook.

The Labor government decided to meet the situation caused by the rapid decline in London funds through the imposition of full control of imports and severe restrictions on the export of capital. If compared only with such alternatives as internal deflation or the further depreciation of the currency, the step is defensible. Internal deflation would have been accompanied by unemployment and unrest—the two major problems that the Labor government had set out to overcome. A depreciation of the currency would have caused a redistribution of income in favor of the farmers (exporters) at the expense of other occupational groups, while nothing in the basic situation indicated that this move was desirable. However, it is not clear that exchange control was superior to a policy of borrowing funds abroad. Exchange control, particularly through the licensing of imports, raises a number of problems of policy and may lead to consumer rationing or other steps requiring a considerable amount of administration. It is difficult to keep a licensing policy free from a policy of protecting local industry, which paves the way for political pressures of one sort or another. In addition, administered distribution of goods is a step away from freedom of choice and as such is not to be undertaken lightly.

On the other hand, the policy of borrowing abroad is limited both by the terms upon which money can be obtained and the additional

rigidity imposed on the economy whenever a major readjustment is required. The wisdom of foreign borrowing depends largely on the expected future course of the demand for export products, and at any point in time it is impossible to make a clean-cut decision. However, in view of the difficulties involved in the alternative methods of meeting the situation, it is possible that borrowing would have been more desirable in this particular circumstance. Certainly a policy of borrowing abroad should not be ruled out of consideration on the grounds that it is axiomatically against the best interests of the economy.

One further development should be considered in connection with the monetary policy of the government. This is the Prevention of Profiteering Act passed August 12, 1936, which established the prices ruling June 1, 1936, as basic prices and required producers and dealers to show cause for any increases over these prices. The law stated that increased costs due to the wage laws and to the increased demand for goods and services resulting from higher purchasing power should be taken into consideration in determining the reasonableness of any price advances that were made, but the ultimate responsibility for determining whether undue price advances occurred rested with the courts. The fact that this law was passed is evidence of the recognition on the part of the government that their monetary policy was inflationary in character. There is no doubt that the purpose of the law was to insure that the inflationary measures would result in increased employment rather than be absorbed in the form of increased profits by entrepreneurs. However, the law had secondary repercussions when taken in conjunction with the restriction of imports through a licensing arrangement. If the supply of goods is limited while purchasing power is increasing, the result is a tendency to bid up prices. If at the same time price advances are prohibited unless justified by cost, the result is rationing either of a formal or of an informal nature. That no particular difficulty was encountered in New Zealand is due to the fact that the import restrictions were not severe and that there was some contraction in purchasing power as a result of a fall in export prices. Furthermore, the outbreak of the war occurred so soon after the imposition of the import restrictions that the full effects of the initial situation had not had time to work themselves out. The main point to bear in mind in this connection is that the experience of New Zealand in the restriction of imports cannot be considered typical and cannot be used without question as a guide to future policy.

International Economic Policy

The most striking step taken in the field of international economic policy was the attempt to work out reciprocal trade agreements in such a way that imports and exports to each country would exactly balance. This policy was a reflection of the fundamental aim of the government to "insulate" the New Zealand economy and represents an attempt by the government to avoid the periodic drains of foreign assets. It is very simple to reason that if exports and imports exactly balanced each year there would never be any pressure on the exchange rate and hence no need for internal deflation with its consequent train of unemployment and mortgage foreclosures. And what better way of achieving this end could be secured than arranging that the imports and exports to each country exactly balanced each year? In addition, there is an atmosphere of equity in the arrangement in that there would be neither a "favorable" or "unfavorable" balance of trade with any country.

There can be no question that such bilateral trade agreements were a part of the policy of the government. In two successive years the New Zealand government offered to import from Great Britain goods equal in value to the total of exports to that country after deducting shipping charges, invisible items, debt service, and a provision for the retirement of debt.⁵ A trade agreement was negotiated in October, 1937, with Germany, which called for a balancing of imports and exports, and somewhat similar arrangements were made with Switzerland and the Netherlands. The Minister of Marketing was specifically charged with the responsibility of encouraging reciprocal trade agreements and was given considerable power to carry on negotiations.

There is much that can be said in criticism of a policy of bilateral trade agreements aimed at balancing imports from and exports to individual countries.⁶ Not only does it require strict control over imports and exports but it interferes with the economies of triangular and multilateral trade. In the case of New Zealand, however, these points are of secondary importance. For many years

⁵W. B. Sutch, "The Ottawa Agreement and After," Economic Record, XV (October, 1939, Supplement), 43.

⁶Cf. Jacob Viner, Trade Relations between Free-Market and Controlled Economies (Geneva: League of Nations, 1943), pp. 22-39. Viner points out the several special circumstances occurring during the 1930's leading toward the more or less general adoption of international trade controls.

there has been a growing tendency to control exports, and at times import restriction had been administered by the banks. Moreover, it could be argued that it might be worth while to sacrifice some of the efficiency of multilateral trade if periodic booms and depressions could be avoided. The important point, however, is the fact that bilateral trade agreements would not "insulate" New Zealand even if it were possible to work out acceptable arrangements with each country. If there were a change in demand for New Zealand exports in any country, whether due to changes in taste, reduced real income, or basic governmental policy, it would affect the prosperity of New Zealand. The terms on which agreements can be negotiated are influenced by demand factors and conditions of supply, and, unless depressions are eliminated, technological change arrested, and freedom of choice overruled, there is no way of avoiding the repercussions of these changes so long as a nation is engaged in international trade. The incidence of the burden of adjustment to these changes may be affected by the reciprocal trade agreements, but there is no way of avoiding all the risk (assuming, of course, that both parties to the agreement are free to bargain intelligently). There is no real gain if a reduction in real income through rationing is substituted for a reduction in real income through relative price movements, while there is a possible sacrifice of whatever advantages exist in the right to enjoy freedom of choice.

The bilateral trade agreement policy of the Labor government did not progress to a point where export quotas and import restrictions became important. However, the implications of this policy as an over-all objective should be clearly understood, and the thinking on the subject should go beyond the consideration of the possible effects on the monetary situation.

In the fields other than trade agreements the international economic policy of the government followed traditional lines. For example, every effort was made to maintain the high standing of the country in meeting its foreign-debt obligations. A case in point was the action of the government when the Southland Electric Power Board attempted to pay interest due in London in New Zealand currency rather than in sterling, relying on the legal interpretation of the terms of the loan contract. An act was passed August 27, 1936, requiring payment in full in London, and, in order to insure its being carried out, the government took over the assets of the power board, guaranteeing the securities outstanding. It should be noted, however, that the borrowing position of the New Zealand government

deteriorated while the Labor government was in power. In part this was due to the loss of London assets, which caused some uncertainty, and in part it was a reaction against the apparent freedom of the government in incurring obligations for the support of public works, social security, higher salaries, etc. Evidence of the loss of confidence on the part of foreign investors is the fact that great difficulty was experienced in refunding £17m. of debt falling due in London in January, 1940. Help was finally obtained from the Bank of England, but only on the condition that the whole amount was to be liquidated within five years.

Although an impartial analysis indicates that the attitude taken by British investors was not justified by the facts, it is important to remember that the ability to borrow abroad and to refund borrowings is affected by governmental policies. This is an important practical consideration for New Zealand in view of the large debt constantly outstanding in London and the fact that the most favorable terms can be obtained in that market. Any program of governmental action must meet with the approval of investors if important repercussions in the loan market are to be avoided.

Looking back over the legislation passed by the Labor government during the period 1936 through 1939, one cannot help observing that the implications of the laws were more important than their actual effects when in operation. The broad powers granted the Reserve Bank, the Industrial Efficiency Act, the policy of reciprocal trade agreements, the broad public works program and the general policy of raising wages, the guaranteed prices for dairy products, etc., seem to point the way to inflation and state control of industry. As a matter of practice, operations have been conducted much as they were before the Labor party came into power, and the difficulties experienced in the loss of London assets can be traced more to anticipations and to outside factors than to any specific action by the government.

CHAPTER XI

SUMMARY AND CONCLUSIONS

In order to summarize and evaluate the effects of the different policies of the Coalition government and the Labor government in meeting the 1930 depression, a table showing the more important economic series for the period 1920-21 through 1938-39 has been prepared (Table 77). This table groups the data in three time periods—1920-21 through 1929-30, 1930-31 through 1935-36, and 1936-37 through 1938-39. The first period can be considered as a base period or a period of "normalcy." The second period reflects the depression policies of the Coalition government, while the third period reflects the influence of the Labor government.

The Period 1920-21 through 1929-30

The ten years included in this period give a reasonably stable base from which comparisons can be made for the subsequent years. Export prices and the total value of exports remained fairly steady, the latter ranging between £43,800,000 and £56,680,000. The value of goods imported fluctuated somewhat more than the value of goods exported, but if we exclude the year 1920-21, which was seriously affected by the carry-over from World War I, the range is relatively small.

The period as a whole is marked by a slight upward trend, but the rate of increase is far less than the 30 per cent increase in population which took place during these years. The series on bank loans and government securities held by banks indicates that there was no inflationary tendency from this source—a marked contrast to the situation in the United States during these years. Foreign borrowing (col. 5) on the part of the central government (and on the part of local government [see Table 19]) showed the greatest upward trend of the series presented, but the magnitude of this series is small in comparison with the merchandise export series and, in addition, is partly offset by the increased interest payments on the funds so raised.

The movement of overseas assets indicates that the trading banks considered a fund of £8,000,000 to £10,000,000 an adequate reserve for the fluctuation in activity that might be encountered. Reference to the changes in the selling rate on sterling established by the banks (Table 11) shows that the rate was increased in 1920, 1925, 1927, and 1929, when funds were below this level, and were

TABLE 77
SELECTED ECONOMIC SERIES FOR NEW ZEALAND, 1920-38*

Year Ending March 31	Export Price Index†	Merch- andise Exports‡	Merch- andise Imports‡	Balance of Merchandise Payments† (2) - (3)	Change in Government Debt Domestic Abroad§	Estimated Government Revenue¶	Estimated Government Expenses¶	Government Securities Held by Banks**	Bank Loans**	Estimated Overseas Assets of Banks††
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1920-21 ...	181	48,199	67,463	-19,264	2,253	35,291	30,769	9,796†††	38,242§§	- 224
1921-22 ...	171	43,802	36,123	7,679	5,595	29,449	31,594	8,798†††	50,608§§	- 1,797
1922-23 ...	136	45,549	36,976	8,573	4,621	28,968	29,924	7,829††	41,711	6,587
1923-24 ...	161	51,653	44,402	7,251	4,157	29,785	30,625	8,094††	44,403	8,254
1924-25 ...	179	54,771	49,821	4,950	6,786	30,951	32,080	8,113††	43,730	13,131
1925-26 ...	177	48,698	53,026	- 4,328	7,921	33,779	34,956	8,072††	48,285	8,202
1926-27 ...	153	45,682	48,193	- 2,511	4,864	34,283	35,324	7,917††	50,801	4,047
1927-28 ...	159	54,957	44,406	10,551	7,571	34,766	36,988	4,799	46,070	12,517
1928-29 ...	168	56,526	45,077	11,449	9,588	36,669	37,797	4,799	46,587	18,632
1929-30 ...	156	48,412	49,429	- 1,017	-2,657	39,132	39,949	5,050	53,285	9,923
1930-31 ...	117	39,527	39,833	- 306	7,864	36,390	39,323	4,030	54,454	7,110
1931-32 ...	96	33,943	24,760	9,183	4,836	33,639	38,705	6,024	51,037	8,839
1932-33 ...	88	37,510	25,060	12,450	713	34,718	38,469	9,260	47,565	11,047
1933-34 ...	100	46,043	26,135	-19,908	- 454	36,741	40,141	23,453	40,420	33,825
1934-35 ...	108	44,918	32,567	12,351	660	40,913	40,653	5,840	44,573	45,229
1935-36 ...	116	49,676	37,440	12,236	-2,851	42,015	43,669	5,911	44,919	44,088
1936-37 ...	133	60,235	47,621	12,614	-2,676	48,302	49,258	7,617	46,779	34,385
1937-38 ...	142	65,008	58,065	6,943	- 92	56,329	49,318	9,102	61,147	26,565
1938-39 ...	135	57,867	54,408	3,459	- 7	58,532	50,976	13,224	74,948	9,272

*Data are expressed in £N.Z.000 except for column 1.

†From New Zealand Official Year Books; index for calendar years 1920-24; average of index for calendar year ending June 30 for remaining periods.

‡From New Zealand Official Year Books.

§From Table 14.

¶From Table 22.

‡From Table 24.

**From New Zealand Official Year Books. Average for the month of March.

††From Table 12.

‡‡Includes reported value of buildings and fixtures. Securities average £5,144,769 for 1922.

§§Data are for calendar years.

decreased in 1922, 1924, and (to a slight extent) in 1928, when the funds were rising above this level. On the basis of the behavior of export values and import values over this eleven-year period, a fund of £10,000,000 would have provided ample protection for a two-year period of low export prices, and for a third year with careful management. In view of the drain on overseas assets in 1920-21 and the experience during the years 1924-25 through 1926-27, this level of funds can be viewed as adequate if not conservative. It must be remembered, however, that the overseas assets of New Zealand were merged with those of Australia, and the analysis presented earlier in Tables 13 and 14 shows that the combined overseas assets were less adequate in view of possible fluctuation than is indicated above.

Generally speaking, however, there were no marked trends during this period, nor is there any evidence of fundamental change. On these grounds, simple averages computed from the data in this eleven-year period can be accepted as representative of the "normal" situation for New Zealand.

The Period 1930-31 through 1935-36

With the exception of the last few months, this period reflects the attack on the business depression through strenuous efforts to reduce internal costs. Although the Coalition government was elected in 1931, its personnel and philosophy were essentially the same as in the preceding administration. The only exception to the policy of deflation was the decision to peg the exchange rate at £125 on January 1, 1933. This step, as has been pointed out before, was taken after Australia had made a similar move and after the trading banks had established a rate of £110. There is no doubt that the change in the rate of exchange was looked upon as a temporary step undertaken to tide over the situation until the effect of the basic policy could make itself felt.

Government expenses were reduced slightly during 1931-32 and 1932-33, but in the subsequent years the expenses rose above the highest level of the preceding period. As was shown in Table 24, the increase in expenses was due to the necessity of providing unemployment relief and to the extra burden of the rising exchange rate on interest payments made abroad. The revenue of the government declined more sharply than expenses, so that the net effect was inflationary, the small deficit being financed by sales of securities to the trading banks. The government changed its policy of borrowing abroad in order not to incur a further interest expense

and initiated the policy of reducing the foreign debt slightly. Since the government had been borrowing approximately £6,000,000 a year during the previous period, this move was distinctly deflationary. It was, however, offset almost exactly by the increase in the value of exports in terms of New Zealand currency caused by the changes in the rate of exchange.

Trading-bank loans, however, decreased during the first four years of the period under consideration.¹ In addition, as was pointed out in Table 54, there is evidence that the velocity of circulation declined somewhat during these years. The effect of these two factors, both deflationary, added to the effect of subnormal total values of exports, was pressure on internal prices. Evidence of such pressure is found in the data available on wage rates (Table 64) and house rents (Table 62), both of which series declined to a greater extent than were required by the direct legislation of the government.

The purpose of the government in encouraging internal deflation was to permit the volume of exports to be maintained or increased by lowering costs of production to the new levels of export prices; to prevent unemployment by permitting the profitable operation of local industries; and to preserve the credit of the country by preventing an excess of imports over exports. Yet the increase in the volume of exports during this period was achieved more by the strenuous efforts of farmers to maintain money incomes and by subsidies in the form of mortgage relief and exchange depreciation than by lowered costs of production. In spite of lowered costs and protection against import competition through the exchange depreciation, the problem of unemployment in local industries was not solved in the six-year period under consideration. Employment in the building industry (Table 72), for example, continued low, since it had previously been supported from the proceeds of foreign borrowing which were now discontinued. Since incomes fell more rapidly than costs in the initial years of the deflation, the subsequent years brought more cautious spending. As Table 77 shows, imports were considerably below normal even after three years of near-normal export values.

The government did succeed in preserving the credit of the Dominion. The abundance of overseas assets arising from a greater than "normal" excess of exports over imports assured payment of interest and principal on overseas loans. This factor might have

¹The increase in government securities held by banks during 1932-33 and 1933-34 reflects the operations of the Banks Indemnity (Exchange) Act and is not an inflationary factor.

been given greater recognition had it not been for the tremendous inflow of funds which took place when the exchange rate was "temporarily" pegged at £125. Even so, there is reason to believe that a moderately inflationary policy on the part of the government and the banks would not have caused an undue loss in overseas assets. The decline in imports in 1930-31 and 1931-32, which occurred before the deflationary action, indicates that the New Zealanders do not spend borrowed money as freely as earned money.

The inadequacy of deflation as a method of attack on the business depression is fairly clearly shown by this experience. The source of difficulty appears to lie in the fact that prices do not fall as rapidly as incomes. The resulting unemployment and uncertainty lead to an unfavorable outlook, which in turn is reflected in a decline in the velocity of circulation of money. As a result, recovery from the depression is not so rapid as a study of a "normal" situation would seem to justify.

The Period 1936-37 through 1938-39

In the latter part of 1935 the Coalition government was defeated in a general election by the Labor government. The record of the first three years of the new administration reflects the vigorous program undertaken to restore prosperity and reduce unemployment. The point that stands out most clearly in the data covering this period is the evidence of internal inflation. Bank loans increased from a previous norm of £45,000,000 to a new high of approximately £75,000,000. This increase was due partly to the financing of exports under the Labor government's policy of guaranteed prices to farmers but to an even larger extent to the actions of the trading banks. The motives behind this expansion of bank loans cannot be assessed, but the renewed confidence of borrowers, the upward movement of export prices, and the transfer of the responsibility for monetary policy from the trading banks to the government must have been the major factors.

A further inflationary factor is the increase in the bank's holdings of government securities. This is an outgrowth of the policy of the new government to finance its public works program from domestic sources, coupled with a feeling that government credit should be used to the utmost in securing a return to prosperity. There was a moderate reduction in government debt domiciled abroad, which, although motivated by a desire for self-sufficiency rather than for government economy in financial matters, amounts to a continuation of the practice of the previous administration.

The value of exports, measured in terms of New Zealand currency, rose to a new high. World prices were favorable during the entire period under consideration, and the volume of production of export goods responded to depreciated exchange rate and to the policy of guaranteed prices. In the "normal" period of 1920-21 through 1930-31, increases in the value of exports tended to be followed by a decrease in bank borrowings. Now, however, since bank borrowings were increasing, each increase in export values represents a direct increase in the national monetary income.

The rise in money incomes in the economy is reflected in the sharp increase in government revenues from taxation and custom duties. Government expenditures also increased in response to new provisions for social security and to a general increase in governmental activity. The increase in recurring governmental expenditures was not so great as the increase in revenues, but the surplus on current accounts was not allowed to accumulate as an idle balance but was used in conjunction with sales of securities to support the enlarged public works program.

Since, unfortunately, there are no reliable figures concerning unemployment, it is impossible to prove that this aspect of the business depression was overcome by the internal inflation. Even if adequate figures were available, the policy of the Labor government of absorbing unemployment by expanding the public works program would make comparisons with previous periods difficult. The best evidence of the recovery from the depression is the sharp increase in the value of goods imported relative to the value of goods exported. During the last three fiscal years of the Coalition government imports averaged 70 per cent of exports, while the ratio for the period under consideration is over 85 per cent. More practical evidence of the success of the new policies is the fact that the Labor government was returned to office with a substantial margin of votes in the general elections held in October, 1938.

The apparent success of the policy of internal inflation followed by the Labor government must be tempered by three important considerations. First, and most obvious, is the fact that export prices were high and rising during the period under consideration. Second, it should be noticed that overseas assets of the banking system declined sharply. In the third place, the New Zealand government found it quite difficult to refund that part of the debt held in Great Britain which matured January 1, 1940.

It is impossible to separate the influences of rising export

prices and the inflationary actions of the government on the feeling of confidence expressed by the New Zealand economy in the period 1936-37 through 1938-39. The jump in value of exports from £37,440,000 in 1935-36 to £58,065,000 in 1937-38 in comparison with an increase in value of imports from £49,676,000 to £65,008,000 for the same years is certainly not duplicated in the total period covered by this study. It may be, however, that the rise in imports at this time is a reaction from the very modest increases in the years 1932-33 through 1934-35. If so, the increase would probably have occurred even if there had been no change in government policies. The downturn of imports in 1938-39 in spite of the continued inflation is further evidence that export prices are more important than domestic policy. The high level of imports in 1920-21 and again in 1925-26 are indicative that confidence and accumulated needs may, on occasion, outweigh the price and income influence.

The sharp decline in the overseas assets of the banks has already been examined. For the most part it appears that the decline was due to the repatriation of funds originally placed in New Zealand in anticipation of a decline in the value of sterling in terms of New Zealand currency. In part, however, the decline can be attributed to the internal inflation, since there would be a tendency to increase imports more rapidly than the increase in value of exports. Furthermore, internal inflation might lead to uncertainty on the part of New Zealand investors, leading to transfers of funds out of the country and to a consequent decline in the overseas assets held by banks. In the period under consideration the influence of these latter factors was apparently small, although in time they might well have become of major importance.

The difficulty experienced by the New Zealand government in refunding the debt falling due in London in 1940 is again hard to evaluate. There is no doubt that the difficulty in raising funds abroad was directly related to the uncertainty engendered in the minds of the potential investors by the policy of internal inflation. However, had the amount of the refunding been smaller or had the need for refunding occurred several years later, the attitude of foreign investors might have been quite different. The rapid decline in overseas assets was quite probably an important factor affecting the judgment of the investors; had the reasons for the decline been better understood, the refunding operation might have proceeded more smoothly. In spite of the particular aspects of the 1940 refunding operations, it is quite clear that a decline in overseas assets

actually caused by a policy of internal inflation would certainly affect the borrowing capacity of the New Zealand government in the London market.

Viewed very broadly, the pervasive influence of export demand on the New Zealand economy is impressive. The particular wording of the laws and the stated aims of a political party carry far greater implications of change than a close examination of the events substantiate. For instance, recovery was slow under the neutral monetary policy of the Coalition government, and confidence increased sharply under the inflationary policy of the Labor government. These observations alone, however, do not prove that the recovery would have been more rapid had an inflationary policy been followed in the early years of sharply falling export prices or that the recovery would have been less sharp in the years 1936 through 1939 had a neutral monetary policy been followed.

The final answer to the problem of formulating appropriate governmental policies lies in a careful comparison of the experiences of different countries in meeting depressions of similar origins and magnitudes. It is hoped that the analysis of the New Zealand situation presented in this paper will prove useful in achieving this further objective.

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